

Factors Leading to Construction Company Success: Perceptions of Small-Volume Residential Contractors

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The majority of home building companies in the United States produce fewer than 25 homes per year. In an effort to identify and report on what the perceptions of owners and managers were regarding the reasons for the success of their own small-volume residential construction companies, a nationwide survey was conducted by randomly mailing written questionnaires to owners and managers of 1,114 companies who were members of the National Association of Home Builders. This research report summarizes the responses to an open-ended question to prioritize the five things that contributed most to the success of residential construction companies. Many of the most important factors that were identified as contributing to the success of construction companies were not those listed as important factors for success in the review of literature. Among the factors of success that did rank high were quality workmanship, honesty, having good subcontractors, customer communications, reputation, having good employees, and completing projects on time.

Key Words: Management Practices, Residential Construction, Home Builder, Company Success

Introduction and Review of Literature

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 argued that some of the most influential factors contributing to the ongoing success of a construction firm are its management systems, procedures and practices (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, et al, 1993).

A thorough review of the literature has revealed no significant studies addressing management's perception of factors leading to the success of construction companies. In a study using nonfinancial predictors, the analysis of the data indicated that careful planning and the use of professional advisors were two factors directly linked to successful businesses. Seeking outside help from professional advisors, including accountants and management consultants can be a wise business strategy (Gaskill & Van Auken, et al, 1993; Lussier, 1995). Of all the management practices addressed in the literature, one of the most universal was planning. Not surprisingly, many indications point to strategic planning as one of the most important tools used by successful businesses (Bryson, 1995; Constance, 1997; Strischek, 1998).

Other factors perceived to be important in construction companies include implementation of accounting systems and regular review of financial statements (Adrian, 1976; Gerstel, 1991; Schleifer, 1990), change order procedures (Adrian, 1976; Gerstel, 1991; Strischek, 1998), the creation of quality performance standards for subcontractors (Gill, 1968; Shinn, 1995), estimating and scheduling procedures (Shinn, 1995; Strischek, 1998), implementation of strict purchase order systems (Gill, 1968; Shinn, 1995), control of job-site safety (Gordon, 1997), ongoing training and education (Bednarz, 1997), and the use of checklists for quality control (Gerstel, 1991).

Research Purpose

The purpose of this research was to identify and report on what perceptions owners and managers of small-volume home building companies had regarding the reasons contributing to the success of their own construction companies.

Limitations

This study was limited to companies that reportedly produced 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.

The Data and the Treatment of the Data

In an effort to identify and report on what the perceptions of owners and managers were regarding the reasons for the success of their own small-volume residential construction companies, 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 this study, 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 producing between 11 and 25 new residential units for the year numbered 20,979 and represented more than half of the reporting firms. The remainder of the population was divided into four other segments. There were 6,563 companies producing between 1 and 10 units per year, 7,079 companies building between 26 and 100 units per year, 4,426 companies constructing between 101 and 500 units per year, and 1,937 companies producing more than 500 units per year (Evans, 2000).

Rather than compiling a list of management practices suggested by the review of literature and then asking builders to determine which were the most important in their business, owners and

managers were asked to prioritize the five things that contributed most to the success of their companies.

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, et al., 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 $\text{Sample Size} = 400 / (.40 \times .98)$.

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. 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 sold 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

Of the 478 questionnaires that were returned, 410 were responsive to the research question. Almost all the respondents listed five things that contributed to the success of their companies. A very small percentage of those who answered gave fewer than five responses. Because the answers were given in priority order, listed one through five, a scoring system was devised to compile the results. The first answer was assigned five points, the second was given four points and so forth, with the fifth answer receiving a single point. In the case of those who gave fewer than five answers, the same point system was followed for the responses given, with the first response receiving five points, etc.

A grid was developed in order to categorize and score the responses. Seventy-eight unique responses were identified along one axis of the grid. The other axis contained a list of the valid

questionnaires. All responses were entered into the spreadsheet, and individual scores were recorded. The scores were then totaled and ranked from highest to lowest (Figure 1).

It was interesting to note that builders' perceptions did not necessarily agree with the literature. For example, strategic planning, considered to be one of the most important factors to the success of a business was considered important to the success of a company by only a handful of the respondents. In fact, it ranked only twenty-first out of the seventy-eight different responses. Additionally, not one builder reported seeking outside help from professional advisors. In fact, of the management practices addressed in the literature, few were considered important by company owners.

By far, home builders considered quality of workmanship and products to be the most important factor to the success of their companies. Many factors that are difficult to quantify, such as honesty, integrity, communication skills, reputation, teamwork, work ethic, commitment and attitude, were also considered to be highly important factors contributing to company success. Other important factors included good subcontractors, employees and suppliers. Scheduling and completing projects on time, in addition to good management, were two other high-ranking factors.

Rank	Factors	Total	Percentage
1	Quality Workmanship & Products	757	13.84%
2	Honesty & Integrity	333	6.09%
3	Good Subcontractors / Subcontractor Relations	279	5.10%
4	Customer Communications & Relations	271	4.95%
5	Reputation / Name	238	4.35%
6	Good Employees / Teamwork	220	4.02%
7	Scheduling -- Timeliness -- Cycle Time	202	3.69%
8	Work Ethic / Commitment / Attitude	184	3.36%
9	Focus on Product Design	176	3.22%
10	Effective Sales and Marketing	174	3.18%
11	Competitive Pricing / Product Affordability	156	2.85%
12	Good Management	151	2.76%
13	Customer Service / Prompt	146	2.67%
14	Owner Knowledge of and Experience in Construction Industry	140	2.56%
15	Location of Building Lots	131	2.39%
16	Referrals / Repeat Business	123	2.25%
17	Attention to Detail / Personal Pride	106	1.94%
18	Fair Pricing / Value	103	1.88%
19	Reliability / Dependability	99	1.81%
20	Good Economy / Good Market	95	1.74%
21	Strategic Planning and Goal Setting / Careful Organizing	85	1.55%
22	Customer Satisfaction	76	1.39%
23	General Communications / People Skills	76	1.39%
24	Careful Supervision of Jobs	72	1.32%

Rank	Factors	Total	Percentage
25	Owner Involvement on Job Site	70	1.28%
26	Warranty Work	69	1.26%
27	Good Suppliers / Product Availability	56	1.02%
28	Flexibility	55	1.01%
29	Low Overhead	44	0.80%
30	Job Cost Control	42	0.77%
31	Time in Business / Longevity	42	0.77%
32	Personality / Friendliness	39	0.71%
33	Estimating / Detailed Bidding	38	0.69%
34	Budgeting and Cash Flows	34	0.62%
35	Lot availability / Company Develops Lots	32	0.58%
36	Use of New Products / Use of Computers	30	0.55%
37	Size of Business is Small	30	0.55%
38	Community / Professional Involvement	28	0.51%
39	Site Cleanliness / Neatness	28	0.51%
40	Capitalization / Financial Strength	26	0.48%
41	Owner On-the-Job Experience	26	0.48%
42	Ability to Obtain Financing	24	0.44%
43	Professionalism	23	0.42%
44	Education of Owners	21	0.38%
45	Employee Relations / Compensation / Longevity	20	0.37%
46	Other Sources of Income	20	0.37%
47	Financial Management	18	0.33%
48	Timely Payment of Bills	17	0.31%
49	Good Accounting Practices	16	0.29%
50	Updated Products / Variety of Products	16	0.29%
51	Family Involvement in Company	15	0.27%
52	Problem Solving Ability / Ingenuity	14	0.26%
53	Husband and Wife Teamwork	14	0.26%
54	Networking / Political Connections	13	0.24%
55	Control of Change Orders	12	0.22%
56	Self-Performed Work / Work not Subcontracted	12	0.22%
57	Desire / Ambition	12	0.22%
58	Interest Rates / Low Cost of Money	11	0.20%
59	Prayer / God	11	0.20%
60	Use of Website	10	0.18%
61	Love of Work	10	0.18%
62	Leadership	10	0.18%
63	Focus on Profit	9	0.16%
64	School Systems in Community	9	0.16%
65	Job Selection	8	0.15%
66	Luck	6	0.11%
67	Government Regulations	5	0.09%
68	Woman's Input	5	0.09%

Rank	Factors	Total	Percentage
69	Paper Contractor / Work is Subcontracted	4	0.07%
70	Client Selection	4	0.07%
71	Favorable Weather	4	0.07%
72	Safety	3	0.05%
73	In-House Mortgage Company	3	0.05%
74	Diplomacy and Manners	3	0.05%
75	Parade of Homes Involvement	2	0.04%
76	Lack of Competition	2	0.04%
77	Good-looking owner	2	0.04%
78	Non-Pressure Atmosphere	1	0.02%
	Total	5471	100.00%

Figure 1: Prioritized list of factors leading to success of small-volume residential companies.

After listing the responses in rank order, similar responses were categorized. The categories included business and management practices; technology; business profile; planning; marketing; external factors; quality, service and warranty work; and personal attributes. Responses in each category were then totaled. Personal attributes were perceived to be the most important by those responding to the survey. Quality of construction, customer service and warranty work were also considered important. Builders also perceived the importance of marketing, product design, and pricing strategies.

Business and Management Practices	Points	Percentage
Scheduling -- Timeliness -- Cycle Time	202	
Good Management	151	
Careful Supervision of Jobs	72	
Owner Involvement on Job Site	70	
Low Overhead	44	
Job Cost Control	42	
Estimating / Detailed Bidding	38	
Budgeting and Cash Flows	34	
Ability to Obtain Financing	24	
Professionalism	23	
Financial Management	18	
Timely Payment of Bills	17	
Good Accounting Practices	16	
Control of Change Orders	12	
Focus on Profit	9	
Safety	3	
Total	775	14.17%

Technology		
Use of New Products / Use of Computers	30	
Use of Website	10	
Total	40	0.73%
Business Profile		
Good Subcontractors / Subcontractor Relations	279	
Good Employees / Teamwork	220	
Business Profile (Continued)	Points	Percentage
Good Suppliers / Product Availability	56	
Time in Business / Longevity	42	
Size of Business is Small	30	
Capitalization / Financial Strength	26	
Employee Relations / Compensation / Longevity	20	
Family Involvement in Company	15	
Self-Performed Work / Work not Subcontracted	12	
Paper Contractor / Work is Subcontracted	4	
In-House Mortgage Company	3	
Total	707	12.92%
Planning		
Strategic Planning and Goal Setting / Careful Organizing	85	
Community / Professional Involvement	28	
Networking / Political Connections	13	
Total	126	2.30%
Marketing		
Focus on Product Design	176	
Effective Sales and Marketing	174	
Competitive Pricing / Product Affordability	156	
Location of Building Lots	131	
Referrals / Repeat Business	123	
Fair Pricing / Value	103	
Lot availability / Company Develops Lots	32	
Other Sources of Income	20	
Updated Products / Variety of Products	16	
School Systems in Community	9	
Job Selection	8	
Client Selection	4	
Parade of Homes Involvement	2	
Total	954	17.44%
External Factors		
Good Economy / Good Market	95	
Interest Rates / Low Cost of Money	11	
Luck	6	
Government Regulations	5	
Favorable Weather	4	

External Factors (Continued)		
Lack of Competition	2	
Total	123	2.25%
Quality, Service, Warranty Work		
Quality Workmanship & Products	757	
Customer Service / Prompt	146	
Attention to Detail / Personal Pride	106	
Customer Satisfaction	76	
Quality, Service, Warranty Work (Continued)		
Warranty Work	69	
Site Cleanliness / Neatness	28	
Total	1182	21.60%
Personal Attributes		
Honesty & Integrity	333	
Customer Communications & Relations	271	
Reputation / Name	238	
Work Ethic / Commitment / Attitude	184	
Owner Knowledge of and Experience in Construction Industry	140	
Personal Attributes (Continued)	Points	Percentage
Reliability / Dependability	99	
General Communications / People Skills	76	
Flexibility	55	
Personality / Friendliness	39	
Owner On-the-Job Experience	26	
Education of Owners	21	
Problem Solving Ability / Ingenuity	14	
Husband and Wife Teamwork	14	
Desire / Ambition	12	
Prayer / God	11	
Love of Work	10	
Leadership	10	
Woman's Input	5	
Diplomacy and Manners	3	
Good-looking owner	2	
Total	1563	28.59%

Figure 2: Categorized list of factors leading to the success of small-volume residential companies.

Conclusions and Recommendations

This study provides insights into the perception of small-volume homebuilders regarding the success of their companies. According to the literature review, one would expect various

management systems, procedures and practices to be among the most important factors contributing to success. However, the results of this research indicated that owners and managers of small-volume home building companies believed that the most important factors contributing to the success of their companies were quality workmanship and products, honesty and integrity, good subcontractors, customer communication and relationships, retaining good employees and completing projects in a timely manner.

Recommendations for further study would be to correlate owners' perceptions of factors affecting their success with actual practices within their companies. Another line of study would be to determine whether these factors are predictors of company success. Further research is also needed to determine measures of some of the important qualitative factors that determine builder success.

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