

# Critical Success Factors in Land Development in New Zealand Part 2 - Planning, Team Member Selection, Project Management, Sales and Marketing Methods

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## Abstract

*This research aimed to investigate the critical factors that contribute to the success of residential land development in New Zealand. The methodology employed involved reviewing the literature to determine those factors earlier identified as critical by international researchers and then comparing those to critical factors identified in a survey of property development teams active in New Zealand. In the interests of brevity the findings are reported in two papers. This paper focuses on factors relating to the development team. An earlier paper focused on factors associated with the site itself.*

*The findings include the concept of "success" is centered on profitability, timeframes and budgets. While establishment of a development plan and its regular review was identified as critical in the literature, this was not always done in New Zealand. In addition, some projects with plans did not include all the critical elements, while others identified additional critical elements. The development team formation process generally reflected international practice but with a particular emphasis on broad experience. A similar situation applied to development management but it was felt some areas were lacking, in particular clearer identification of the development manager role. Sales and marketing methods were often not put in place until later than ideal and had relatively small budgets compared to that recommended in the literature, but the methods and strategies were similar. Overall the critical factors identified were similar to those found in the literature, but with local adaptations reflecting the relatively small size of local developments and development teams.*

*Key Words: development, subdivision, residential, success factors, planning, team, selection, project, management, sales, marketing.*

## Introduction

The development of raw land into lots suitable for construction of individual houses is a lengthy and complex process. It is also a topical one in New Zealand with debate in recent times regarding the high cost of land for housing relative to the actual cost of house construction. The purpose of this research was to investigate the critical factors that contribute to the success of residential land development in New Zealand.

The research involved two phases; the first was a literature review to establish a theoretical view of elements or factors important to the land development process. The second stage was to test if this model reflected reality in a New Zealand context via a survey of development teams from a number of different residential land development projects.

Because of the range of responses collected in the survey and the desire to keep papers reporting the results to a reasonable length, the research has been divided into two, somewhat arbitrary, "themes". The first, and the subject of a previous paper (presented at the 2009 PRRES conference), were those critical success factors most associated with the project itself. These included site selection, due diligence, finance and the regulatory environment. This second paper covers those factors more related to management of the development process. These include planning, team member selection,

development/project management, sales and marketing methods. It is important, however, that the results of both papers are considered as a whole as components of both “themes” were found to be critical to success.

## Literature Review

This research was primarily concerned with the development of large blocks of residential and rural residential land into lots suitable for the construction of residential dwellings. In New Zealand “subdivision” is often used generically to describe this process which is more accurately described as a residential land “development”. Christensen (1996) describes the typical land development as follows:

“The complete development process of carrying subdivisions beyond their technical stage to the provision of underground services, tailoring the service of the land and construction thereon of streets, footpaths, complete with curbs and channels, street lighting, trees, grass burns, street names and most importantly, sections with legal title and building platforms capable of being built on.” Christensen also provides a flowchart of this “subdivision” process from a procedural perspective from which it is apparent that it is a complex process and must be carefully planned at all times.

### General Rules for Success

Dowell, (1989) provides the following general criteria for a successful land development project:

- Clear and simple goals,
- Incorporate incentives which reward performance and risk taking,
- Be small in size,
- Be flexible and responsive to changing market conditions, and;
- Have access to sufficient financial resources and highly talented staff.

It could be argued that large land developments can be successful with effective planning but in these cases it is also difficult to satisfy the criteria of retaining flexibility. This is particularly the case as local authorities usually require a detailed plan of the ultimate form of the development prior to granting approval. Developments completed in “stages” are a common response to these problems.

Peiser and Schwanke, (1992) recommend that market research should consider existing competition plus levels of supply which may become available during the term of the development. They also offer general advice that can be applied to all development situations – “be well prepared at all times, work with experienced people, and anticipate delays throughout the development process.”

Waterhouse (1991) also offers general advice – “successful development and the ability to avoid catastrophic error are not so much a matter of having a particular depth of knowledge in one or more fields, you can hire experts to provide that, but rather than having a breadth of knowledge about the development process and the willingness to be methodical and attentive to detail.”

### Development Planning

Once the decision to proceed with a development has been made, detailed planning and the establishment of project systems should occur.

Sorenson (1990) emphasises the importance of the development plan; *“Poor planning of a project, weak administration, inexperienced management or leasing, poor negotiating skills, internal conflicts, problems with partners, weak financial infrastructure, incompetent personnel, understaffed teams, inaccurate construction estimates and excessive cost overruns are all examples of the harm that can ensue from inept ownership”* An effective development plan should acknowledge these potential problems and if they can’t be eliminated, consideration should be given as to how they can be mitigated.

Waterhouse (1991) describes a “development business plan” where *“the outline of the real property development process bears a strong resemblance to that of a business plan....”*

A development plan is an extension to due diligence (discussed in the earlier paper) but the plan also addresses the actual mechanics of the development by setting out operating procedures, establishing the project team, project management and finally monitoring/control systems. The development plan is effectively a live document which should be continually referred to during the life of the project to ensure systems and protocols are being adhered to; or if certain elements of the plan should be amended.

Mantel, Meredith, Shafer and Sutton (2001) provide the elements of a project master plan;

1. Overview
2. Objectives
3. General approach
4. Contractual aspects
5. Schedules
6. Resource requirements
7. Personnel
8. Potential problems

Mantel et al. (2001, p.57) places particular emphasis here on remembering the adage of *“learning from experience”* and advises that this section should include: *“a list of the reasonably frequent disasters that strike projects similar to the one being undertaken – late subcontractor deliveries, bad weather, unreasonable deadlines, equipment failure, complex coordination problems and similar happenings.”*

The importance of planning is further emphasised by Jarchow (1992): *“the developer who succeeds most often is the one who takes most care to validate the assumptions over which he has some control and to cushion the enterprise with tolerance for surprise and those changing conditions over which there is little control.”*

The concept of development planning is described as being concerned with *“the front end of the project and taking the idea or business opportunity up to the completion of the Project Brief”* (Arrow International undated)

It is clear from the literature, that a comprehensive and carefully thought out development plan can be a factor which is critical to the success of large land development projects. However, to some developers it could also be seen as a laborious, expensive and time consuming task which is not entirely necessary. The research reported on later in this paper will establish whether or not the preparation of a detailed development plan is a contributing success factor in a New Zealand context.

### **The Development Team**

Every development requires a team of professionals suitably qualified to carry out their assigned tasks during the life of a project. Peiser and Schwanke (1992) detail the professionals likely to be involved in a development project and at what stage in the process they will contribute:

- Site selection – Brokers (land agents), market consultants.
- Feasibility study – Market analysts, economic consultants, bankers, engineers.
- Design – Architects, general contractors, surveyors, soils engineers, structural engineers, environmental consultants, land planners, landscape architects, parking consultants.
- Financing – Bankers, construction lenders, permanent lenders, appraisers.
- Construction – Architects, general contractors, surveyors, engineers, landscape architects.
- Marketing – Brokers, public relation firms, advertising agencies, graphic artists.
- Operations – Property managers (however, not applicable to land development)
- Sales – Brokers, appraisers.
- Throughout the process – Lawyers.

Baca (1988) confirms the importance of land or town planners and this is emphasized further by the comments of Peiser and Schwanke (1992): *“On land development projects, the land planner is the principal professional consultant. Reputation and past projects are the best indication of a land planner’s ability.”*

Christiansen (1996) identifies a similar group of professionals, although more in a New Zealand context, which may include:

- Architects
- Structural engineers
- Services engineers
- Quantity surveyors/programmers/cost controllers
- Property and/or buildings managers
- Market researchers
- Town planners/resource managers
- Valuers
- Real estate agent
- Contractors

However, Christiansen qualifies this with: *“the team will depend upon the nature and size of the project. It may need additional or fewer participants.”*

Christiansen (1996) identifies different methods by which contractors are selected:

- Negotiated contract
- Guaranteed maximum price (GMP)
- Invited notional tender –
- Fast tracking
- Invited tender
- Open tender

Christiansen also provides the following attributes to be taken into account when selecting a contractor:

- Price – While this is an important factor it is unwise to choose a contractor purely on this alone. The price may be the lowest for a number of reasons and the savings made by a low price is easily outweighed by other factors such as time and quality.
- Time – As discussed on a number of occasions, time is the primary enemy when undertaking land development projects. Construction is typically a major component of the development process, and can be the most time consuming. It is not uncommon for construction contracts to contain performance bonuses and penalties. In some regions it is not advisable to carry out physical works during the winter months. Therefore, securing a contractor early becomes all the more important.
- Financial Standing – of the contractor is worth considering, - the delays resulting from a contractor becoming bankrupt half way through a project may create significant problems. There is also the risk that the company may have tried to “cut corners” to reduce costs if under financial stress.
- Past Performance – Contractors differ in skills and experience, therefore it is important to choose the right contractor for the specific construction project. A wrong decision can result in lost time and money in rectifying poor workmanship.
- Resources - This relates to the contractor having sufficient finance, equipment and human resources committed to the development for the required duration. It is common for contractors to carry out contracts simultaneously spreading resources thinly; hence the need for incentives.

## **Development or Project Management**

Development management, also called project management, deals with the actual implementation, monitoring and control of a development project. Oberlender (undated) defines project management as *“The art and science of coordinating people, equipment, materials, money and schedules to complete a specified project on time and within approved costs”*. Christiansen (1996) describes

“development management” as *“the professional role of coordinating and managing a project through all its phases from inception to completion. It is not merely concerned with the construction stage; paradoxically, that is perhaps the least significant stage of a development project. Development management is everything that goes on before the construction stage is reached, during construction, and in the tidying up and commissioning stage which follows construction”*.

The role of development/project manager has evolved as development projects have become increasingly complex and large teams of specialized professionals are brought together. The development/project manager role is primarily one of coordination of these large teams with the responsibility to ensure the goals and objectives of the development shareholders are achieved. Waterhouse (1991) observes that the development/project manager has the responsibility of overseeing the process to the point where the developer no longer has any obligation to the development.

Christiansen (1996) outlines four essential requirements for a development/project manager:

- Professional competence in a land and buildings related discipline
- Commercial flair
- Leadership, management and relationship skills
- Experience of the development process

Christiansen also comments on different stages of development management *“As a development progresses so does the nature of the management which is responsible for that progress”*. The development/project manager should bear in mind their responsibilities for overall management and should avoid assuming the role of any one of the specialist team members.

Hutchinson (1999) provides “Top Ten Project Principles”:

- 1) Have a clear and comprehensive project vision
- 2) Seek authority commensurate with your responsibility
- 3) Provide leadership
- 4) Facilitate communications
- 5) Pre-empt project problems
- 6) Manage conflict
- 7) Encourage participation
- 8) Use forward-looking control
- 9) Use proven tools
- 10) Keep records

In addition to the personal factors above, there are three more important elements to development management these being project monitoring, reporting and control.

Mantel et al. (2001) describe the “Plan-Monitor-Control Cycle”. Planning has been discussed above but data collection and reporting must be in place to ensure the plan is being adhered to. *“The key to setting up a monitoring system is to identify the special characteristics of performance, cost and time that need to be controlled in order to achieve the project goals stated in the action plan”* (Mantel et al. 2001). This includes the identification of key performance indicators (KPIs) which ascertain whether a project is adhering to the original plan. Mantel notes there are a number of tools such as Gantt charts which enable the user to set up baseline performance indicators from which anomalies are easily identified.

KPIs that are recommended include:

- The overall development plan and corresponding Gantt chart
- The master budget and any unforeseen costs which must be included as they occur
- Individual budgets pertaining to each element of the project
- The original project scope and constant monitoring of this to ensure there are no additions to the scope without relevant team members having been informed

Once these KPIs are established regular reporting and meetings are required as a monitoring tools: *“there are many possible report formats, but the most popular are project status reports, time/costs reports, variance reports, update presentations and similar documents”* (Mantel et al., 2001).

Christiansen (1996) recommends that meetings are held by the core project team which makes up the "Project Control Group" (PCG). He further explains that the key to an effective and efficient PCG is "firm chairmanship and a restricted number of people working easily together. It is unwise to let the PCG grow beyond about half a dozen members at any one time; four is probably the ideal maximum". It is the development/project manager who usually has the role of the establishment and coordinating of the PCG and should have the authority to make decisions on behalf of the developer (development shareholders) if they are not present.

While monitoring and reporting identify issues, control systems prescribe methods with which to maintain as little difference as possible between the project plan and the actual project progression.

As Mantel et al. (2001) explains that project control has two purposes; "the stewardship of assets and regulation of results through alteration of activities". Assets can be further broken down into physical, human and financial.

Mantel describes one useful tool which can be used as the "Critical Ratio" (CR). This indicates to a manager when a task is becoming unacceptable as the CR drops below 1.

For example:  $CR = (\text{actual progress/scheduled progress}) \times (\text{budgeted cost/actual cost})$

A ratio above 1 is desirable - but one factor which falls below 1 may be offset by the other factor which is well above 1.

Another important aspect of project control is project scope creep and change control.

Mantel et al. (2001) suggests the following practises assist in the mitigation of change to a development project:

- Appropriate systems established to ensure changes are evaluated effectively.
- Any change to a project must be preceded by a "change order" which clearly describes the change and the impact on processes, budgets, schedules or deliverables.
- All changes must be approved in writing by the appropriate team member authorised to do so. This will depend on the significance of the change.
- The development/project manager must be fully consulted before any decision to implement a change is made.
- Once approved the development plan must be amended accordingly.

## **Marketing and Sales**

The marketing of the end product is the final factor critical to the success of a land development project. "A sound marketing program is not an afterthought but rather an organic extension of the entire development program" (McMahan, 1989). Christiansen (1996) makes similar comments. The success of marketing will come down to the right combination of market conditions, advertising and sales methods. Experience, reputation and communication are very important when selecting the real estate agent and incentives should be offered for outstanding results. Peiser and Schwanke (1992,) provide some guidance on marketing as follows:

- Be prepared for unanticipated changes or a weakening market
- Find a broker you can trust and can work with.
- Understand the importance of marketing the project yourself
- Advertise when you have made a deal

McMahan (1989) comments on targeting a specific market: "...This will vary with the location and nature of the market area, the degree and nature of competition, the advantages and disadvantages of the subject site, and the quality and responsiveness of the planning and design process....". The monitoring of the marketing strategy is also important "External forces must be realistically assessed. If the economy has moved into a recession or high interest rates are being used to slow inflation, the entire market for the project may be affected. If these changes appear to have long term consequences, it may be necessary to revise the original absorption projections and/or modify the marketing strategy"

The development budget should have careful consideration given to marketing costs especially with larger developments where the selling period may extend beyond what was anticipated. *“Once the final budget is established, a contingency of 30 to 40 percent should be added to allow for an extended advertising program if sales or leases do not materialize as projected”* (McMahan, 1989). McMahan also describes how careful consideration should be given to the marketing methods of comparative developments and their relative effectiveness

Image Planning as described by Lorenc (1989) is *“the creation of a unique visual identity program, achieved through the integration of sign, sculpture and graphic design, coordinated with architectural design land planning and engineering”*. It is very important when undertaking green fields development, that the market has the impression that the development is going to be successful and a sense of urgency is placed on having to acquire a section quickly.

Opinions differ on the issue of employing real estate agents McMahan (1989) and Peiser and Schwanke (1992) state that if the project is a large, long term development, an internal sales team may be more appropriate. Some development companies may have in-house marketing specialists along with an established brand.

However, if the development company is relatively new, then it is generally prudent to commission a well respected and competent real estate agency to market the product on the developer's behalf; *“Advertising and other promotional activities can interest people in the project, but interest is translated into an economic event only by means of a closed sale or lease”* (McMahan, 1989). Agents can also provide valuable advice at low cost and should have been approached during the preliminary investigation stage to provide indications of likely demand and price levels (Peiser and Schwanke 1992).

McMahan (1989) suggests another good reason to use external sales people is flexibility; *“The independent brokerage firm offers the advantages of familiarity with the local market area, the ability to move ahead immediately, fewer out-of-pocket costs prior to sale and no continuing financial commitment once the project has been sold or leased”* The agent(s) commissioned can also be selected based on their specialist experience.

Negotiation of commission with the agent should be done at the very beginning of the relationship to remove any doubt. McMahan points out that an agent's commission is how they make a living and therefore, those properties yielding a higher commission will generally receive the most attention by the agent. The developer should offer performance bonuses where certain prices and sales targets are achieved.

The developer's targeted market and budget will dictate somewhat which advertising options are employed. Advertising methods include:

- Newspapers (national and local) and other regular publications
- Brochures and flyers
- Television and radio
- Internet Websites
- On-site displays and sales offices
- Electronic displays

Christiansen (1996) notes some developers will employ an advertising agency to design and develop marketing material and media campaigns to maximize exposure to the market. The developer should consider the cost versus benefit of all options before making any decisions.

## Research Methodology

The first stage of the research involved compiling the preceding review of the literature to help identify factors in the land development process that contribute to success. Those identified can be summarized as: site selection, due diligence, finance, the regulatory environment, development planning, team member selection, project management, sales and marketing. As mentioned earlier, only the last four factors of the preceding list are considered here, the remainder being the subject of an earlier paper.

The second stage of the research was to confirm or reject the hypothesis that these factors are essential to success in a New Zealand context. To do this four case study projects were examined in detail. These were not randomly selected but represented a unique opportunity to have ongoing and in-depth access to a wide range of senior personnel within a relatively large development company. There is obviously a risk of not getting a true reflection of industry practices with such a small and biased sample, but this was the only option available to the researchers for such an in-depth study.

Potential bias was mitigated to some extent by the fact that these projects were situated in four very separate locations through out New Zealand, each had a completely separate development team and each is a joint venture arrangement and therefore influenced by different groups of shareholders who are not part of the principal development company. However, the limitations of this approach are recognized and the results, therefore, should be interpreted with caution. This study may also form the basis of a wider study in the future. Details of each case study are provided in table 1 below.

**Table 1: Project Case Studies – General Details**

	<b>Project 1</b>	<b>Project 2</b>	<b>Project 3</b>	<b>Project 4</b>
<b>Project type</b>	Residential	Rural-Residential	Rural-Residential	Rural-Residential
<b>General Location</b>	Lower North Island	Lower North Island	Central North Island	Lower South Island
<b>Lot yield</b>	28 Lots	110 Lots	181 Lots	18 Lots
<b>Lot size (m<sup>2</sup>)</b>	450 to 850	4000 to 10,000	700 to 10,000	12,000 to 24,000
<b>Project valuation (GST Incl) (on completion)</b>	\$9.3m+	\$10m+	\$40m+	\$9.6m+
<b>Commencement</b>	Early 2002	Mid 2004	Early 2003	Mid 2004
<b>Completion</b>	Late 2005	2010	2009	Mid 2007

Project team members were provided with a questionnaire to complete. Follow up phone calls, emails or interviews were necessary for further clarification on answers.

For each section covered in the literature review, questions were developed with the answer providing information for the comparison of theory against actual practice in the land development industry in New Zealand. The questionnaire contained simple “yes” or “no” questions, five point Likert scale questions and other questions which were more qualitative in nature requiring the respondent to provide written answers based on their opinion or experience.

Strengths and weaknesses respondents saw in each project were also identified and this provided evidence as to whether those factors identified as being critical to success in theory contributed to the level of project success and/or problems experienced in the projects. In addition, respondents provided comments regarding their experience in other projects they have been involved in.

A response rate across the four project case studies of 70% was achieved with 21/30 questionnaires returned completed.

Quantitative data was graphed or tabled and those questions that required a qualitative answer were further analysed to identify any trends apparent across the case studies.

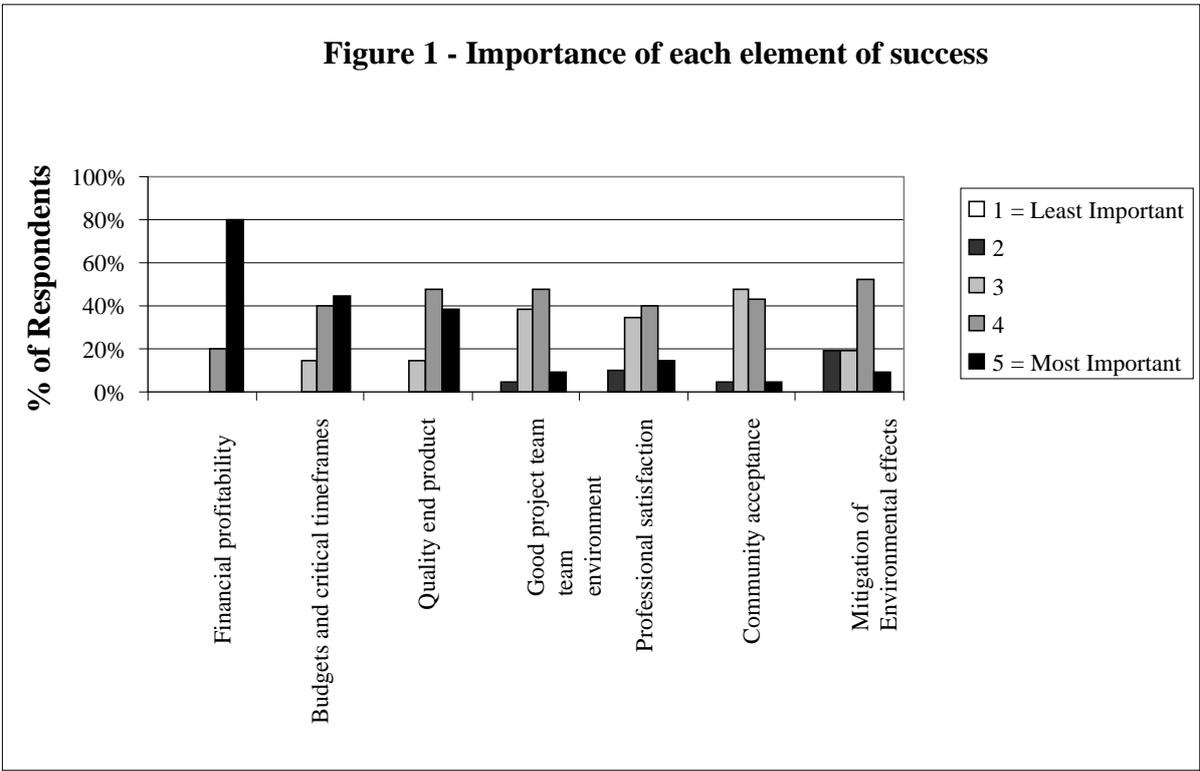
# Results

**Table 2: Mix and proportions of respondents**

	Actual number	% of total
Shareholders	8	38%
Management	3	14%
Consultants	10	48%
Other	0	0%
Total	21	100%

## Measuring success

In order to ascertain which elements are critical to success it was important to first establish what “success” is to those being surveyed. To this end respondents were asked to rate from 1 (being least important) to 5 (being most important) the elements which were considered relevant to the success of a development project.



80% of respondents rated financial profitability as being most important, with the remaining 20% giving this element a rating of 4. The majority of respondents rated all elements as moderately to most important, with only a very small number rating any of the elements of little importance. Of these, professional satisfaction, community acceptance and mitigation of environmental effects received the lowest ratings proportionately.

The latter findings are surprising when the community can have a strong influence on the regulatory process. Further questioning suggested commercial reality means a balance must be found when attributing importance and thus resources to all of the aspects described above. For example, certain aspects such as critical financial and budget timeframes take priority over other aspects in order for a development to remain profitable for the principal company.

When asked whether all the above elements were achieved in a general sense; only 5% of respondents believed all were achieved and 81% believed some elements were achieved. 15% of respondents believed either very few or no elements defining success were achieved on their projects.

**Development Planning**

57% of respondents advised that a development plan was established for the projects, 14% said there was no development plan and 29% were unsure.

Those respondents involved in development planning were asked to identify the elements which were included in the plan. The results are shown in Table 3.

**Table 3 Elements Included In the Project Development Plan**

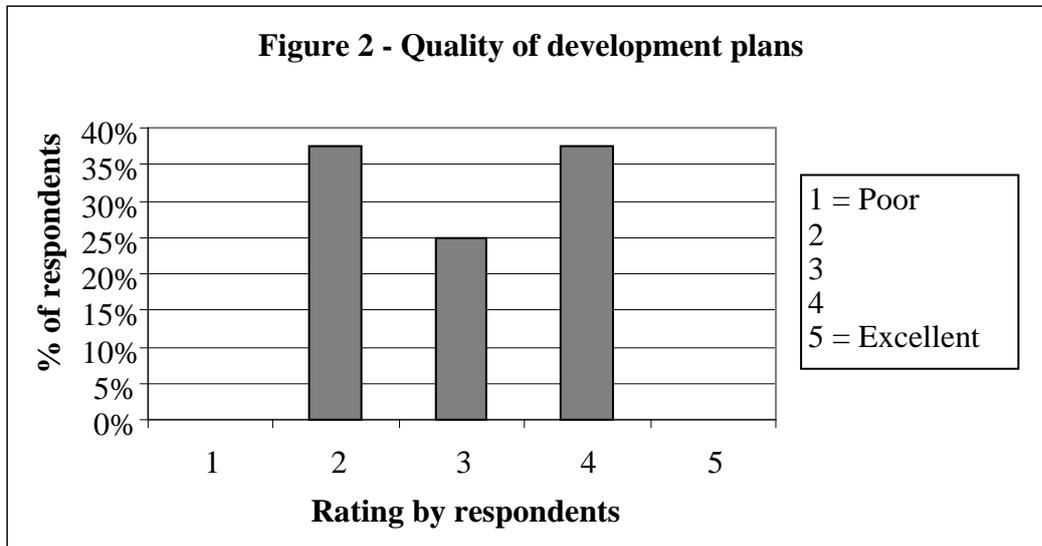
	Yes	No
Project scope	48%	52%
Project schedule	57%	43%
Project cost estimates	67%	33%
Human Resources	48%	52%
Development organisation	19%	81%
Development management	24%	76%
Legislative & regulatory	62%	38%
Report/performance measures	24%	76%
Marketing	52%	48%
Exit Strategy	19%	81%
Other:	0%	0%

Respondents were also asked to comments on what else should be included in the development plan or more clearly identified in terms of systems or strategy.

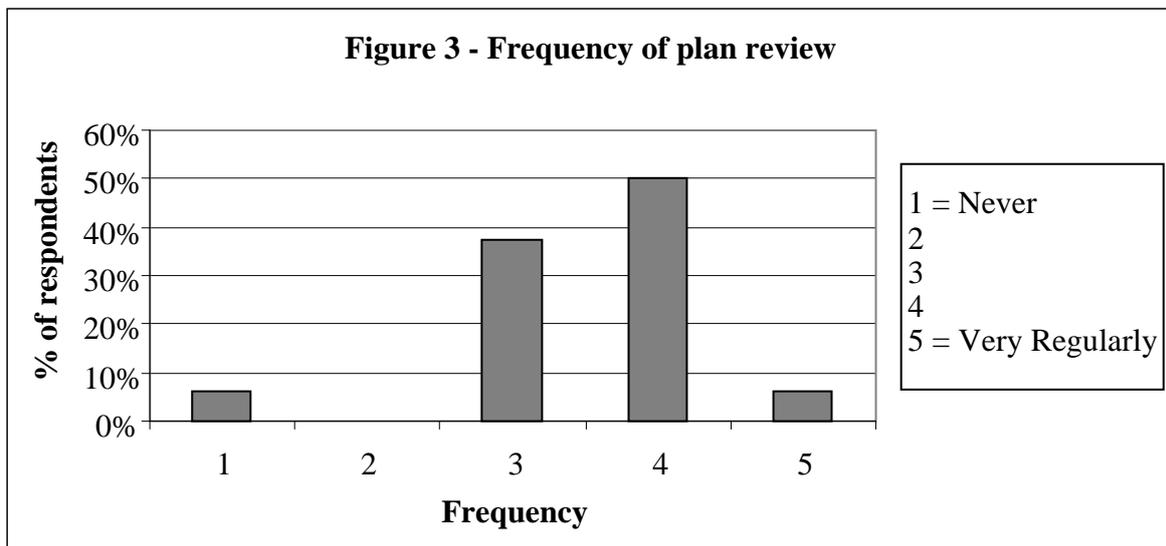
Clear trends in the responses included:

- Monitoring of market movements.
- A risk analysis should be included and needs to be a separately identified item which includes both economic and market risks.
- Stronger communication systems were required between management and consultants; as well as communication between consultants.
- Better reporting structures.
- Construction procurement method.
- Cost control systems.
- Roles and responsibilities.

Figure 2 shows the perceived level of quality and effectiveness of the development plans for each project. The findings suggest that there was room for improvement with a total of 62.5% of respondents stating that the quality of the development plan was average (rating of 3) or less. No respondent viewed their development plan as being excellent.



From those projects that did have a specific development plan, it appears there was generally a regular review carried out. As shown in Figure 3 below 88% of respondents believed the development plan was reviewed fairly regularly. However only 6% felt the development plan was reviewed very regularly and another 6% of respondents said that the development plan was never reviewed.



Despite the findings above 100% of respondents said that a development plan was absolutely necessary and should be reviewed very regularly i.e. at least monthly.

## The Development Team

Respondents were asked to detail the composition of their development team, including professionals involved and to what extent. A list of typical professionals identified in the literature review was provided, as was the opportunity to list additional professionals. Table 4 shows the results.

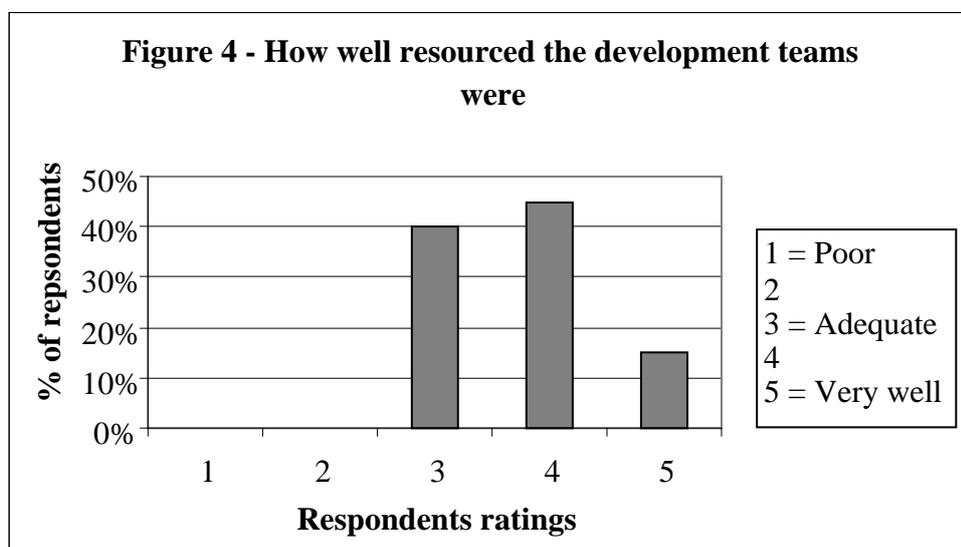
**Table 4 Extent Various Professionals Were Used in Projects**

Rating	1	2	3	4	5
Involvement	Little or None	Some	Moderately	Significant	Involved Throughout
<b>Professionals</b>					
Development Manager	0%	0%	10%	25%	65%
Project Manager	0%	0%	5%	25%	70%
Engineer	0%	0%	14%	43%	43%
Surveyor	0%	14%	29%	24%	33%
Planning Consultant	0%	11%	44%	28%	17%
Quantity Surveyor	71%	29%	0%	0%	0%
Legal Advisor (RMA)	26%	21%	32%	11%	11%
Legal Advisor (General)	5%	25%	35%	25%	10%
Finance Broker	54%	23%	23%	0%	0%
Valuer	21%	21%	36%	21%	0%
Construction Contractors	0%	0%	26%	53%	21%
Real Estate Agent	0%	5%	26%	47%	21%
Marketing Consultant	27%	40%	33%	0%	0%

When asked what other professionals could have added value to these projects the respondents provided the following suggestions:

- Financial/cost controller.
- Resource management (planning) advisors from the beginning of the project.
- Independent and experienced engineers – In the project, for which this comment was made, the engineer and surveyor were one and the same and lacked some the specific engineering skills required.
- Independent contractors – In the project, for which this comment was made, the primary contractor was a shareholder in the project.

Figure 4 shows the respondents opinions of how well resourced the projects were. The projects appeared to be relatively well resourced with 60% of respondents believing the projects were well or very well resourced.



Construction contractors were generally selected through a tender process except for one project; in which the contractor was a shareholder. The tender process was either by open tender or invited tender followed by a negotiation process with one or two of the most eligible contractors, to establish the finer details before making a final decision. Table 5 lays out the selection criteria and the relative importance as rated by the respondents.

**Table 5: Contractors - Rating Of Importance for Each Selection Criteria**

	1	2	3	4	5
Criteria	Low				Very High
Price	0%	0%	5%	50%	45%
Time	0%	0%	10%	35%	55%
Financial Standing	0%	25%	45%	5%	25%
Past performance	0%	11%	11%	32%	47%
Resources	0%	5%	10%	45%	40%

Respondents rated most criteria as being very relevant with each criterion receiving a rating of high to very high importance from at least 89% of respondents. The only exception was that the financial standing of the contractor had a relatively low level of importance.

Respondents also placed importance on a number of other factors not included in the above selection criteria including:

- Project management ability.
- Health and safety record.
- Quality of work.
- Time required to be supervised by the contract manager.
- Having right skill set for particular job.
- Good liaison – keeping consultant & client regularly updated & informed.
- Good programming and ability to deliver according to programme.
- A good relationship being essential between the developer and the primary contractors.
- Significant penalties and bonuses should apply wherever possible to prevent contractors weighing up the cost/benefit of concentrating their resources on other projects. A good contractor will usually be willing to accept these conditions.

The role of managing the contractor was predominantly given to the civil engineer or the development/project manager.

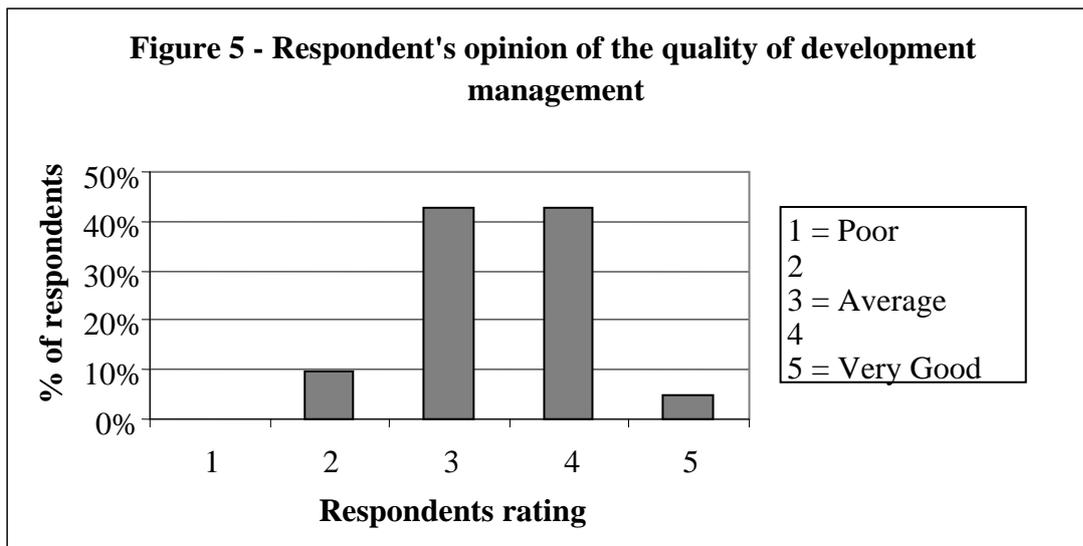
The form of contract used by most project managers when engaging contractors was a standard document issued by the New Zealand Standards Authority.

**Development/Project Management**

More specific investigation was carried out on the management of the development projects to ascertain the degree to which management processes and a specific development management role were established.

75% of respondents believed there was a specific development management role, but 25% of respondents could not easily identify who was actually the designated development manager.

Figure 5 illustrates the respondent’s opinions as to the general quality of the development management for their project.



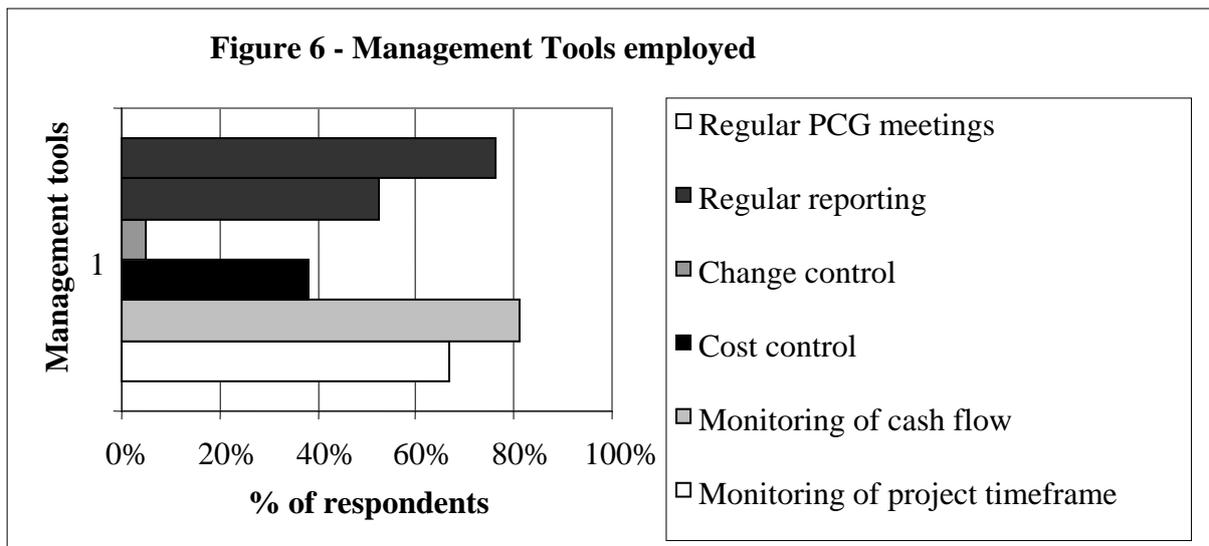
A number of different elements of development management were provided to the respondents to rate how well each was managed. The findings are detailed in Table 6.

**Table 6 Respondent's Opinion on the Effectiveness of Specific Elements of Development Management**

	1	2	3	4	5
<b>Management elements</b>	<b>Poorly Managed</b>				<b>Very well Managed</b>
Goals & Objectives	0%	29%	10%	38%	24%
Roles & responsibilities	0%	15%	25%	45%	15%
Team personnel	0%	0%	52%	33%	14%
Communication	5%	5%	55%	15%	20%
Reporting	5%	14%	43%	24%	14%
Finance	6%	6%	31%	44%	13%

Effective monitoring and control systems are essential to ensure problems are identified early to provide enough time for solutions to be found and/or contingency plans to be implemented.. The findings show a spread of opinion among the respondents with only goals and objectives being viewed by more than 20% of respondents as being very well managed. The management of personnel was the only element that did not receive a rating below 3.

The management tools used in the projects are illustrated in Figure 6 The vast majority of respondents identified systems which monitored cash flow, project timeframes and regular PCG meetings as being the primary management tools with 81%, 67% and 76% (respectively) of respondents having some involvement with these management tools during the project. However, less emphasis appears to have been placed on systems for controlling costs and even less attention was paid to critical changes to the project, with only 5% of respondents believing such a system was used during their project.



### Marketing and Sales

A marketing strategy was established for each of the projects. In three of the four cases, consideration was given to a specific marketing strategy later in the project rather than at the beginning or development planning stage. The reasons given for this included the need for the final design to be decided; as well as the need to gain resource consent before any form of public marketing was commenced. In one instance it was decided to wait until the construction was well under way so potential purchasers could see the final form the subdivision was going to take. Table 7 sets out the relative importance given to each aspect of marketing when establishing a marketing strategy.

**Table 7 Consideration Given To Various Aspects in Establishing A Marketing Strategy**

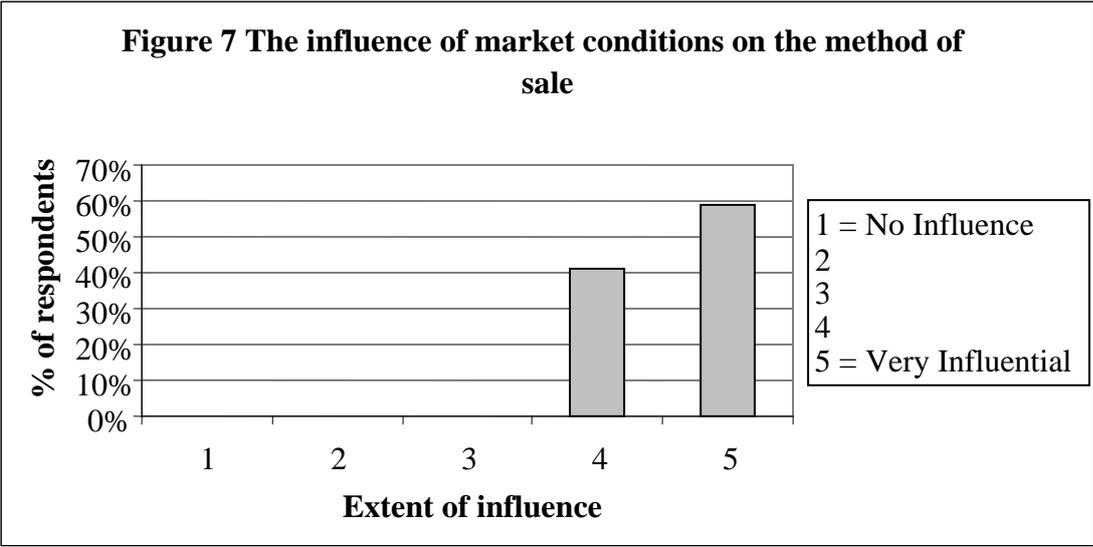
	1 No Consideration	2	3	4	5 Significant Consideration
ID of specific target market	0%	27%	27%	33%	13%
Timing	0%	19%	31%	38%	13%
Budget	0%	58%	33%	8%	0%
Branding and image	0%	19%	19%	50%	13%
External or internal sales agent	0%	0%	0%	100%	0%
Method of sale	0%	8%	17%	58%	17%
Advertising methods	0%	0%	41%	47%	12%
Competitors marketing	21%	21%	21%	36%	0%

The findings were varied on a number of aspects including the identification of a specific target market, the timing of when the marketing should commence and a marketing budget. 58% of respondents said little consideration was given to the marketing budget. Consideration of how competing developments were being marketed was also mixed with 42% of respondents believing this aspect was given little or no consideration.

Those aspects where a stronger trend emerged included consideration as to whether an external or internal real estate agent should be used, the method of sale, branding & image and advertising methods. All of these aspects were rated as been given fairly significant consideration by at least 59% of respondents.

In all projects an external real estate agency was used to market and sell the completed sections on behalf of the developer. Reasons for this included the local knowledge and specific experience an external agent has, as well as the more extensive network of potential purchasers. In addition, there was usually an incentive built in the commission package rewarding the agent for achieving both higher than expected prices and within shorter than expected timeframes. The cost of these rewards to the developer will be far outweighed by the financial benefits due to decreased holding costs and higher gross realizations.

Figure 7 below clearly identifies the influence market conditions have on the method of sale a developer will use; with 100% of respondents believing that market conditions are influential.



Deciding on a method is critical, as using an incorrect method for the market conditions can have serious implications to the level of success. The research identified three common methods of marketing; *tender*, *auction* or *by negotiation*. If demand is high and supply is short then in order to maximize revenue, methods such as *tender* or *auction* may be appropriate. In addition it may be appropriate to adopt different methods during the development. For example, a tender or auction may be used in the early stages to generate interest and a sense of urgency within the market place; particularly when the time between releasing of sections is lengthy. As demand drops off the “by negotiation” method can be adopted.

The survey findings revealed that local authorities frown upon developers who market properties before consent is obtained. In addition, early marketing may inappropriate, as sometimes it is difficult for potential purchasers to share the same vision a developer may have. Marketing can then be more effective when the development has reached a certain level of completion as it is easier for the market to appreciate the end product.

Conversely, the research also found that early marketing has a number of advantages:

- Pre-sales can be achieved long before construction is complete and, as this reduces risk for lenders, finance costs can be reduced.
- The market can become familiar with the product early, even though the design may not have been finalised
- Feedback is provided to the developer about the product. This is especially valuable if the market response is negative, as it allows changes to be implemented before significant funds are expended.

The decision to market early or hold off is critical and should be made only after careful consideration is given to the facts and advice from market specialists e.g. Valuers and Real Estate Agents is taken into account.

## **Conclusions**

### **Development Planning**

The establishment of a development plan and its contents was identified as a critical factor in the literature review. In contrast, the research findings suggested that a carefully thought out development plan is not always employed. Generally all the projects considered did have some form of development plan (even if its existence was not communicated to all and the quality was variable) and they included many of the elements which should make up an effective plan.

However, some of the important elements of a development plan identified in the literature were absent or under-represented in the findings. Of particular note were lack of clear objectives or an exit strategy plus the lack of development management, development organization and reporting and performance measurement systems.

In contrast, respondents highlighted additional elements that should be included in the development plan. These included risk analysis, strong communication and construction procurement method. It is also critical that the development plan is regularly reviewed and amended to meet any new pressures that external influences (such as a change in market conditions for example) may have on the overall success of the project.

It should be noted that a number of elements in a development plan are also addressed during due diligence. The purpose of a development plan however, is to build further on the due diligence report and establish how the development is to be managed, roles and responsibilities within the project team, reporting, scheduling and formal budgeting. Therefore, a due diligence report does not address all the issues and a development plan remains an essential component of a development.

An effective development plan is clearly a critical contributing factor to a successful project. The project team must be made aware of the projects goals and objectives, roles and responsibilities and the developer's expectations in order to effectively carry out their role. A development plan is the most effective method way to relay these matters. By establishing a thorough development plan, all potential issues are addressed as the team is required to take into consideration all aspects of the development process; rather than discovering problems and inefficiencies as the project progresses.

### **The Development Team**

The research showed that teams that were formed in practice more or less mirror typical team composition identified in the literature review and included in table 4. The respondents advised that the development team should be chosen carefully with each member selected on their experience and ability to work together rather than just cost. Developers who use cost as the primary decision making tool can face increased costs due to work being re-done, fixing mistakes and longer completion / delivery times. Independence and being involved early in the project were also considered important and respondents generally felt their projects were relatively well resourced.

The process of selecting a contractor also generally follows the criteria outlined in the literature review but in an environment of strong demand for contractors, less emphasis is placed on criteria such as financial standing and more emphasis placed on price, timing, resources and past performance.

Tender followed by further negotiation was the dominant contractor selection method. In terms of important criteria, quality factors came to the fore, in particular those centered on communication and broad competence. Willingness to accept penalties/bonuses was also a factor.

Ultimately the developer relies on the advice and skills of the development team and therefore, the selection of the best possible team for a specific development project with unique challenges is certainly a critical success factor.

## **Development/Project Management**

Both the literature review and survey findings identified development management as a significant element of the development process encompassing a variety of different functions including; co-ordination of the project team, project control and monitoring, reporting, arranging of financing, managing conflict and having general responsibility for overall progress and success.

The research revealed decisions sometimes need to be made quickly, as delays could result in adverse flow-on effects. Therefore in practice, development projects follow simple management systems to allow for flexibility and speed, while still adhering generally to development management principles.

A significant number of development management tools were identified in the literature review, some of which were used by the survey respondents. However, there were some gaps when comparing ideal management systems against those systems used in practice e.g. a lack of project scope creep and change control systems.

Monitoring and control was apparent across all of the projects, mainly using tools such as financial reports and critical paths. These were generally reviewed at least once a month with the forum for this being the widely used Project Control Group meeting.

There is little doubt that development management is critical to the success of a land development project. An effective development manager will base decisions on good judgment and experience and will build a cohesive, experienced team around them to ensure the development is completed on time, within budget and achieves the goals and objectives of the developer. Generally the respondents felt the standard of Development/Project management was average to good but it was apparent most areas had potential for significant improvement. One of particular benefit is likely to be clearer identification of the development/project manager role.

## **Marketing and Sales**

The strategy and methods of marketing, advertising and sale, as detailed in the literature review were found to be essentially the same as those used in practice. However, these were often not put in place until later in the development process in order to maintain flexibility.

Other significant differences include a lack of importance placed on the marketing budget, and on competing developments marketing strategies and less use of internal sales personnel.

The level of expenditure should be relative to the size of the development and the developer should take care not to spend money on ineffectual advertising. Advice from real estate agents and advertising consultants should be obtained to ensure the timing and budget is appropriate for the intended methods to be employed.

In summary, an effective marketing strategy for a land development project is critical and must reflect market conditions. Benefits of such a strategy include:

- Achieving early sales resulting in lower holding costs.
- Reaching a greater number of potential purchasers through effective advertising methods.
- The right sales method is employed to suit the market conditions.
- The marketing budget is used effectively by not employing methods that will not generate sales.
- Enhances the public profile of the development company which will have a positive flow on effect for future projects.

In conclusion, it is apparent from both the literature review and survey results that land development requires consideration of a significant number of factors. Four categories of factors are discussed above and a further four are the subject of an earlier paper. While differences were identified between New Zealand practice and that identified in the literature, these were comparatively minor.

Careful consideration of these critical factors should mitigate the risks associated with land development. Each factor is important individually, but is also required to be considered in relation to other factors as well. Failure to adequately consider an individual success factor may not necessarily equate to failure of a project; as each project has its own set of challenges and hurdles. However, it is the carefully planned and implemented combination of all of these critical factors which will result in a truly successful project.

## Research Limitations

The research was undertaken using a limited number of case studies. These projects were all undertaken by one development company albeit in partnerships with external parties. Therefore, the development processes and systems employed were influenced to varying degrees by the principal company.

The questionnaire contained questions not all respondents could answer due to lack of involvement in those areas of the development. However, sufficient respondents had the knowledge to provide answers within each section of the questionnaire to facilitate meaningful analysis.

The answers given to some questions were open ended and subjective, and dependent on the respondent's personal opinion and experience during their project. This may result in inconsistencies but can also be seen as identifying important issues to those involved in the projects.

Not all the projects were complete at the time this research was undertaken. However, all projects had sufficiently progressed through the land development process to facilitate meaningful responses.

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