

THE INSTITUTE OF ENTERPRISE EDUCATION

SURVEY OF A.P.M.A. SMALL & MEDIUM ENTERPRISES

IDENTIFYING NEEDS & GAP ANALYSIS OF
ENTERPRISES, AND PERSONNEL OUTPUT OF
EDUCATIONAL SYSTEM

APRIL 1999

Final

BACKGROUND INFORMATION

At the dawn of the new millenium, the Canadian economic system is experiencing a revitalisation that is driven by the growth of enterprising culture in our country. Since the concerted effort by public and private organisations to promote the importance of entrepreneurs in our society, we have witnessed a dramatic growth of Small and Medium Enterprises (SMEs) which has enhanced our economic and social vitality. From 1989 to 1993, the small business share of total employment increased from 38.4% to 41.1%, and for the SMEs it increased to 53.5%, while the contribution of large firms decreased to 46.4%.

Statistics Canada reported that firms in Atlantic Canada with fewer than five employees were the only significant employment creators in the four years from 1989. At the national level, the highest growth in SMEs took place in Newfoundland and Labrador. Yet, there has not been any major national research that identifies or evaluates the specific needs of these entrepreneurs as potential employers. In the early 90's, the Conference Board of Canada identified general skills and competencies desirable in our youth. However, they were not specific enough to assist with effective curriculum development in the area of enterprise education, nor was there any indication whether the educational system was meeting the labour market needs of these SMEs.

PURPOSE OF SURVEY

With the above in mind, the Automotive Parts Manufacturers' Association (APMA) has entered into a partnership with the Institute of Enterprise Education to conduct a preliminary survey of small and medium-sized enterprises. The purpose of this survey is to :

- (a) Identify the needs of the enterprise;
- (b) Identify any gaps in human resource, business and/or leadership development;
- (c) Determine the ability of the educational system to provide effective employees for our enterprise.

SURVEY METHODOLOGY

The survey instrument consisted of a questionnaire with 30 questions varying in type and content. It was mailed with a covering letter to the owners/managers of 150 small and medium enterprises in the province of Ontario in the automotive parts manufacturing sector. To improve the response rate, this was followed by direct personal telephone contact.

During the eight weeks after sending out the questionnaire forty three SMEs from the above sample returned them completed, representing a response rate of just over 29%.

RESULTS OF SURVEY

The data from the survey was analysed and classified in the following categories:

- (a) Business Profile;
- (b) Sales and Product Profile;
- (c) Business Start-Up and Experience;
- (d) Personnel Requirements;
- (e) Business Vision and Mission;
- (f) Knowledge, Skill-Set, and Attitudinal Needs.

A. BUSINESS PROFILE

Of the 44 SMEs, 38 firms were directly involved in automotive parts manufacture and assembly. Three firms functioned in service related roles, and two

were involved in distribution. Over 59% of the responding sample firms have been in business for more than 20 years, and another 27.3% were between 11 and 20 years old. Just under 14% have been in business for less than 10 years, indicating that this industry sector is a mature and well-established one with few recent entrants.

Nearly 66% of the firms employed more than 100 persons, while 13.6% and 18.2% of the enterprises employed 51-100 and 21-50 persons respectively. The automotive parts industry is still generally labour intensive using manual and/or semi-automated manufacturing processes. The automotive industry has its own formalised quality system and standards, and it is not surprising that 61.4% of the firms rank themselves in the top 10% with the competition, with another 22.7% in the top one third. Only one firm considered itself to be in the bottom one third amongst the competition.

More than half the responding sample said that their current business status was in the mature phase, and were established and well-known in the industry. However, they were faced with increased competition, and re-engineering/re-structuring issues. Another 43% were in a growth phase and were still adding human resources, but had to work hard developing their existing employees. Only one SME said it was in an initiation phase with an existing market niche for its products. Its main problem was that it could not find sufficient competent employees.

Majority of the SMEs appear to have well established organisational/management structures. In nearly 80% of the sample, less than 25% of the key decisions was made by the President. In 14% of the firms the CEO made over 75% of the decisions.

B. SALES & PRODUCT ANALYSIS

New product development appears to be an on-going activity in most SMEs in this industry, with new car models coming out every year and major design changes every three years. Although 38 SMEs said that their present products contributed to

sales growth, 42 firms were currently developing new products, and 38 firms felt further developments of more new products were required. This constant thirst for new product development indicates a need for innovation and creativity in their employees.

During the last two years 56.8% of the firms experienced increased profitability, while 20.5% reported decreasing profits. It indicates that some work is needed in improving business operations in this industry.

Analysis of sales shows that 37.1% of sales came from products developed in the last 6-10 years, 43% and 25.3% sales were from products developed in the last 3-5 and 0-2 years respectively. Geographically, 54% of sales were from within Canada of which 22.1% from Ontario, 41.8% from partners in the Free-Trade Group, and the remainder from other countries globally, e.g. Austria, Holland, China.

C. BUSINESS START-UP & EXPERIENCE

Overall, 27.2% of the SMEs were acquired by their owners through inheritance or outright purchase of which one third was due to the former. In another 40.9% of

the firms, the owner/manager worked their way up the corporate promotion ladder. Nearly 16% of the SME owners indicated that they were the founders of their business. The owner/managers did not generally engage in formal planning, as 77% reported that they did not have any formal plan at start-up. Only 18% had a formally written business plan. Short to medium time horizons may be responsible for this to some extent. Almost all the SME's with a formal business plan at start-up had university trained owner/managers.

In 20% of the firms, the owner/manager worked full-time, and an overwhelming 88.6% of the total sample mentioned that they had past relevant experience. Some 22.7% of the respondents have had industry experience in the same sector. This indicates that this industry operates in a closed boundary, and is locked into itself. There are very few outside entrants into this sector, and cross-fertilisation of ideas is unlikely.

Over 61% of the owner/managers had graduated from university, approximately another 16% graduated from college, while the remainder had graduated from high school or had served some form of apprenticeship. Nearly 87% of the owner/managers said they would have preferred some further education or work experience before business start-up. It indicates that they did not have sufficient confidence in their ability to run business operations and executive management roles.

D. PERSONNEL REQUIREMENTS

Almost 66% of the SMEs ranked Attitude first as being necessary for enterprise growth. 56% ranked knowledge as being the third requirement. There was some indecisiveness in ranking skill second among the sample participants, although 52% ranked it second.

Only 9.1% considered the present education system to be very effective, while 45.5% said it was somewhat effective. A fairly large group (43.2%) was unimpressed by the current educational system. There was a majority of SMEs across the board (55%, 55% and 59 %) who had concerns about the education system, felt it needed to be changed, and had specific recommendations for its improvement. In the main they felt that the education system did not turn out prospective employees with the required attitude, knowledge and skill set. The schools need to work more cooperatively with industry, expose students to the industrial trades through apprenticeships, and train educators to deliver the services necessary.

E. BUSINESS VISION & MISSION

A quarter of the SME owners had over 50% equity in their enterprises, with 22.7% below the 50% equity level. The majority (45.5%) indicated source of funds coming from personal savings or bank loan split evenly in the two groups. Over 68% said that they had a Start-up Vision, and nearly 57% mentioned that this vision

changed with time, and 70.4% still have a vision for their enterprise. Some 84.1% of the SMEs replied that their employees are aware of the enterprise's vision and this has had a positive impact on the firm. Some 84% say that they still face challenges in their enterprise, and 36.4% feel that some problems faced by their firms are insurmountable.

F. KNOWLEDGE, SKILL-SET & ATTITUDINAL NEEDS

Interestingly, the survey revealed that of the total range of qualities indicated in this section of the questionnaire, overall the SMEs in the sample felt they needed 54% of the attitudinal/personal qualities, 33% of the knowledge requirements, 67% of the skill-set items.

The majority of responding firms ranked Attitude in first place (65.9%), next Skill was ranked second (52.3%), and followed by Knowledge in third (61.4%). While first and third rankings emerged clearly, some firms were hesitant in ranking Skill in second place.

Attitudes and Personal Qualities were ranked as follows by the sample of 44 SMEs in descending order:

ATTITUDES	No.
1. Self-Motivation	38
2. Work Ethic	37
3. Positive Mental Attitude	35
4. Self-Confidence	34
5. Enthusiasm	33
6. Continued Learning	27
7. Perseverance	26

8. Leadership	24
9. Professionalism	24
10. Beliefs and Values	24
11. Self-Awareness	14
12. Open to Change	14
13. Risk Taking	13
14. Flexibility	13
15. Passion	12
16. Community Involvement	6

KNOWLEDGE- Work Experience

The preferred work experiences are indicated below :

- Lots of Experience.....10%
- Industry Experience.....44%
- Some General Experience.....32%
- No Previous Experience.....14%

KNOWLEDGE- Education Levels

The Education Levels recommended by SMEs are as follows:

LEVEL	NO.
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1. Some High School.....	6
2. High School Diploma.....	17
3. Some College.....	13
4. College Diploma.....	23
5. Technical Training.....	21
6. Completed Apprenticeship.....	13
7. Some University.....	7
8. Undergraduate Degree.....	12
9. Graduate Degree.....	4

SKILL SET- Communication

The Communication skills wanted by SMEs are ranked in descending order:

COMM. SKILL	NO.
1. Listening	38
2. Computer	33
3. Writing	30
4. Speaking	28
5. Reading	23
6. Visual Literacy	15
7. Fluency-other languages	4
8. Other	2

SKILL SET-Human Relations

Human Relations abilities found necessary are:

HR ABILITY	NO.
1. Establish Relations	33
2. Motivating	32
3. Maintain Relations	31
4. Negotiating	18
5. Other	1

SKILL SET- Creativity & Innovation

The weights of the various abilities are as follows:

ABILITY	NO.
1. Idea Generation	36
2. Idea into Action	34
3. Idea Evaluation	21
4. Other	3

SKILL SET- Decision Making

These abilities are needed in the following descending order:

ABILITY	NO.
1.Situation Diagnosis	35

2.Problem Identification	32
3.Data Analysis	30
4.Making Decisions	30
5.Data Collection	20
6.Other	1

SKILL SET- Problem Solving

These abilities are required as follows:

ABILITY	NO
1. Logical Thinking	39
2. Decision Implementation	32
3. Evaluating Results	28
4. Other	1

SKILL SET- Management

The necessary management skills are ranked as follows:

ABILITY	NO
1.Organising Knowhow	34
2.Leadership Knowhow	31

3.Planning Knowhow	29
4.Integration	26
5.Influencing	24
6.Delivery Ability	18
7.Other	2

SUMMARY OF SURVEY

Needs of The Enterprise

1. Enterprises in this industry sector are generally over 20 years old, and require regular injection of financial and human capital.
2. SMEs engaged in automotive parts manufacturing are fairly labour intensive employing manual and/or semi-automated manufacturing processes.
3. Nearly half of the industry sample were established, well-known firms which appear to be less adaptable to fast changing market dynamics.
4. SMEs in (3) need to more energetic and flexible in the marketplace in order to cope with increased competition. Many of these firms are faced with re-engineering and restructuring issues.
5. Just under half the sample of SMEs are experiencing effective growth and require the addition of further competent human resources.
6. A small minority of firms having existing market niches cannot find suitably trained personnel.
7. In the industry competition, an overwhelming 85% of SMEs rank in the top one third of the sector. There is an urgent need to stay competitive in this industry.
8. There is a well established management structure in this industry and key decision-making is delegated to various levels of the organisational pyramid.

Although a majority of the CEO's (65%) are involved in only 10%, they need to keep in touch with other parts of the firm, and not depend on the corporate momentum always.

9. There is a constant need for new product development in this industry, and the new product to market time horizon appears to be relatively short, probably 6 to 18 months.
10. Nearly 44% of enterprises need to improve on the profitability of their business operations.
11. There appears to be a need to extend their sales effort more globally outside the immediate free-trade area.
12. SMEs need to tap into other sources of funds such as venture capital, partnerships and employee ownership.
13. There is not enough cross-fertilisation of ideas with other industrial sectors.
14. With the constant need for new products by SMEs in this sector, innovation and creativity is a strategic skill-set for this industry, and this needs to be nurtured through various concrete and specific steps.

Gaps in Human Resource, Business & Leadership Development

1. Through SME-Supplier relationships in the automotive parts manufacturing industry as well as industry quality systems and standards, there is a tendency to become too locked in, and thus become insensitive to new ideas and developments in a broad sense.
2. SMEs in this sector need more leaders with a global view, and not followers with a narrow focus.
3. Firms in this industry need more appropriately trained and competent personnel.
4. Generally, survey participants need 75% of the attitudinal, knowledge and skill-sets mentioned in the questionnaire, but not necessarily with the most desirable rankings.
5. There is a gap between perceived needs of the organisational structure of SMEs and some specific enterprise needs such as new product development, innovation and creativity.
6. Over 75% of enterprises report that they prefer new employees to have some industry/work experience.

7. 80% of SMEs say that they require employees with an educational attainment of College/Technical Training/Apprenticeship background or less. Only 20% need university trained personnel.

8. There appears to be a gap between business and human resource needs in that listening and computer skills are required by over 75% of the firms, while less than 50% of respondents felt they needed the more human communication skills such as speaking, reading and visual literacy.

Ability of Education System to Deliver Effective Employees for Enterprise

1. Over 60% of the enterprises had specific concerns about the education system.
2. The Education System has to be more responsive to industry needs.
3. The Education System should be more decentralised.
4. The Education System need to work more cooperatively with enterprises.
5. Educators should be retrained and upgraded in order to deliver the employees required by SMEs.
6. Overall, the majority of SMEs ranked Attitude/Personal Qualities first, Skill was second, and Knowledge came in third.
7. The Education System should encourage more students to take up industrial trades, and produce employees with technical skills required by the SMEs.
8. The majority of enterprises wanted to see changes in the education system.

FORCE-FIELD ANALYSIS – What they want ? v.s. What they have ?

- [A] Market and Risk Diversification. V.S. Locked into North American Market.
- [B] Constant Need for New Product Development. V.S. Conflicting Organizational Structure.
- [C] Need for Creativity & Innovation. V.S. Command & Control Management System.
- [D] Employee Hirings from within Industry. V.S. New Ideas & Products.
- [E] Education for Work. V.S. Education for Life.
- [F] Human Resource Problems of Industry. V.S. Problems In Education System.