INDUSTRY IN LEBANON
2011

EXECUTIVE OPINION SURVEY

غرفــة التجـــارة والصناعـــة والزراعـــة
Chamber of Commerce Industry & Agriculture
بيروت وجبل لبنان Beirut & Mount-Lebanon

CENTER FOR ECONOMIC RESEARCH

AT THE CHAMBER OF COMMERCE INDUSTRY AND
AGRICULTURE OF BEIRUT AND MOUNT LEBANON

01
CONTENT

01

FOREWORD

The third edition of the Executive Opinion Survey targeting major Lebanese industrial enterprises was conducted in the first four months of 2011 by the Center for Economic Research at the Chamber of Commerce, Industry and Agriculture of Beirut and Mount Lebanon.

The survey and the periodic reports on industry published by the Center reflect the importance the Chamber attaches to its role in addressing the sector's problems and demands.

Industrial production contributes to no less than a fifth of Gross Domestic Product. Industrial exports have been on an ascending course over the past decade and now cover 23 percent of total imports.

But the activity has to contend with a number of critical challenges deriving from the economy's stage of development and the constraining process of integration within the rules-based international trade order.

The present survey sought to detect the activity's most pressing concerns as expressed by a hundred entrepreneurs and executives.

In a bid to reveal all respondent choices and the cross-linkages between sets of variables, responses were treated using all relevant data processing and data analysis procedures offered by SPSS, the software application chosen for the interpretation and reporting of the survey's results.

A revised version of the questionnaire will be adopted in the 2012 edition of the survey.

02

THE SURVEY'S QUESTIONNAIRE

A- POSITIONING RESPONDING ENTERPRISES

The questionnaire's first three sections were intended to collect information on the size of responding enterprises as expressed by labor force employed, location: Beirut and Mount Lebanon; North Lebanon; Bekaa; and South Lebanon, and sector of activity.

B- HYPOTHESES MORPHED INTO CORE MULTIPLE RESPONSE SECTIONS

The 13 multiple response sections that form the core of the survey's questionnaire may be viewed as hypotheses that were set forth to be corroborated, prioritized or even refuted by the stated views of the hundred industrialists who participated in the executive opinion survey.

A close examination of the hypotheses reveals that these were derived from oft-stated analytic knowledge based on observation but not tested in any rigorous method.

A cursory overview of hypotheses that were morphed into multiple response sections in the questionnaire of the Industry Survey 2011 (IS2011) reads as follows:

1. Industrialists persistently complain that productivity at sectoral and at enterprise levels is generally less than optimal and attribute this to the following factors: labor; cost of energy; inadequate infrastructure; expensive raw materials; inefficient and corrupt public administration; suboptimal production level; and the technology gap.

2. They deem the access of their products to export markets to be compromised by factors such as the cost of compliance to product norms, standards and specifications; administrative impediments; competition in price and quality; constraining rules of origin; protectionism and technical barriers; insufficient information; and inadequate export promotion.

3. Their position on local markets is undermined by factors such as the negative image of local production; import

competition; low purchasing power; underdeveloped distribution networks; a lack of information; and illegal imports.

4. The sector's labor problems are seen as caused by comparatively high wages; low skills; the absence of industrial discipline; a shortage of required skills; and inadequate technical training.

5. Industrialists consider financing to be problematic due to the facts that: access to subsidized financing is limited; bank credit is expensive and requires excessive collateral; and their own resources are mostly invested.

6. On the positive side, industrialists often state that they perceive their competitive edge to be due to product differentiation and characteristics; lower costs; technology used; market position; and an adequate marketing approach.

7. Their stated expectations from business support institutions focus on the provision of advice, technical and financial; information and market studies; partner search; and training.

8. Their perception of the industrial policy that would promote their interests lays alternate stress on protection and free

trade; is mostly consistent regarding the free movement of labor; calls for incentives for investment and exports; seeks to reduce local costs; demands an efficient and modern infrastructure; is aware of the importance of research and development and the protection of intellectual property rights.

9. Their views on the impact of trade agreements and of exchange rate fluctuations on their exports are mixed, hence the necessity of testing alternate hypotheses on these counts.

(Refer to Appendix A for the integral wording of the questionnaire.)

These hypotheses may in effect be viewed as equations of the form:
Productivity [dependent variable] = f(labor; energy; infrastructure; raw materials; public administration; production volume; technology use) [independent variables]

In the same line of thought, responses to the survey's questionnaire would therefore afford an evaluation of the weight of each independent variable within the equation-like set of responses.

Obviously, both dependent and independent variables are categorical variables. Hence, the weight of each independent variable as revealed by the survey's results can only be expressed as a frequency.

To take data processing a step further, the present approach attempted to detect strong correlations between dependent variables where such correlations exist.

The survey's multiple response sections are divided into four categories:

o   Six sections allow participants in the survey to voice concerns about critical issues namely, constraints on productivity, the ability to access export markets, local sales, access to financing, the impact of exchange rate fluctuations, and labor problems.

o   Two sections invite opinion on two key sector-specific issues namely, factors affecting competitive edge and the impact of trade agreements.

o   Two sections pertain to expectations respondents hold concerning industrial policy and the support and services offered by business representative institutions.

o   And, three sections are enterprise-specific and inquire about the enterprise's purpose from seeking bank credit and the enterprise's expansion plans on the local and international scenes.

03

PRESENTATION OF THE SURVEY'S RESULTS

A- Profiles of participant enterprises

LOCATION
Of the total number of enterprises which participated in the survey, 81 percent were located in the Beirut and Mount Lebanon region, whereas ten percent were located in the Bekaa, five percent in North Lebanon and four percent in South Lebanon.

ACTIVITY
Thirty percent of responding enterprises came from the food processing sector of manufacturing; 16 percent were producers of construction materials; ten percent were in the chemical industries; nine percent in electrical industries; nine percent in paper; six percent in plastics; five percent in textiles; five percent in furniture; three percent in machinery; three percent in printing and publishing; two percent in cosmetics; one percent in metal works and one percent in ammunitions.

LABOR FORCE
Of the total number of enterprises which participated in the survey, 24 percent had a labor force of more than 250; 22 percent employed between 100 and 250; 35 percent employed between 30 and 100; and 19 percent employed between 10 and 30.

B- Multiple response sections

1- PROBLEMS AND CONCERNS
1.1- PRODUCTIVITY [1]

ENERGY
Within this category of multiple response sections, some 43 percent of respondents stated that the high cost of energy is the most important factor that affected their productivity. An additional six percent of respondents ranked energy as the second most important factor affecting productivity, and 29 percent considered energy as third in importance. Taken within a Multiple Response Set (MR Set), energy was viewed in 78 responses out of a total of 300 as being among three most significant factors impacting productivity.

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1   (For the complete set of ranked frequencies refer to Tables 1.A; 1.B; 1.C, in Appendix D, and for the complete set of simple multiple response frequencies refer to Table 1, in Appendix E).

LABOR
To 22 percent of respondents, labor ranks first in importance as a factor affecting productivity, with 16 percent of respondents placing labor as second in importance on that count and 15 percent placing that factor as third. Within an MR Set, 53 responses placed labor among three highest-ranking factors affecting productivity.

RAW MATERIALS
Expensive raw materials were deemed to have the strongest impact on productivity by 19 percent of respondents, whereas another 19 percent ranked this factor as second in importance and 22 percent ranked it as third. In an MR Set, expensive raw materials were among the three most important factors affecting productivity according to 60 responses.

LOW VOTES FOR CORRUPTION, TECHNOLOGY & OPTIMAL PRODUCTION
Noteworthy in the survey's responses on the ranking of factors affecting productivity is the fact that none of the respondents considered corruption in the public administration as having the most important impact on productivity. And, only six and four percent of participants ranked that factor respectively as second and third in importance.

FACTORS AFFECTING PRODUCTIVITY
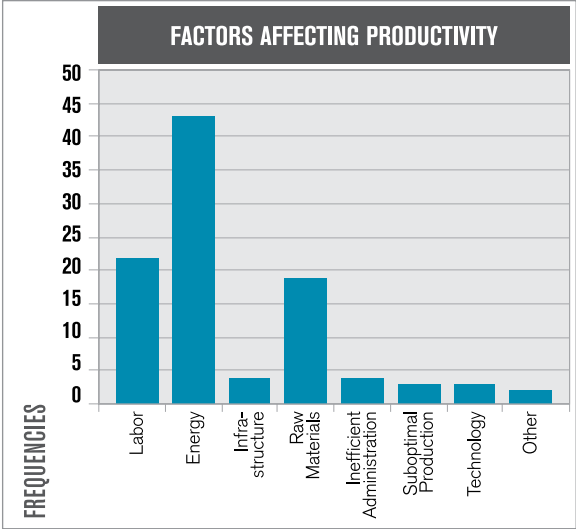
Going against prevalent opinion, the level of technology used was ranked first in importance as a factor impacting productivity by only three percent of respondents, whereas two percent ranked that factor as second in importance, and seven percent as third.

Also diverging from common acceptance is the fact that only three percent of respondents ranked the optimization of production scale as first in importance as a factor effecting productivity, and four and five percent ranked it as second and third in importance respectively.

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1.2- ACCESS TO EXPORT MARKETS [2]

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PRICE COMPETITION
A considerable proportion of respondents – 52 percent – considered price competition to be the most important factor rendering their access to export markets more difficult. This further lends credence to recurrent complaints voiced by industrialists that high local factor costs hamper export competitiveness. In addition, 22 percent of participants in the survey ranked price competition as second in importance among factors affecting exports, and seven percent ranked that factor as third in importance. Within the applicable MR Set, 81 responses of a total of 300 mentioned price competition as one of three most important factors affecting exports. This is the most significant expression of concordant views on a matter of concern to industrialists in Lebanon.

PROTECTIONISM
A tenth of the survey's respondents said the most

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2   (For the complete set of ranked frequencies refer to Tables 2.A; 2.B; 2.C, in Appendix D, and for the complete set of simple multiple response frequencies refer to Table 2, in Appendix E).

significant impediment to export market access lies in protectionist measures imposed in those markets. Equally notable is the fact that 27 percent of respondents ranked protectionism as the second most constraining barrier to export market access, and ten percent ranked that factor a third in importance. Overall, the MR Set tallies 47 responses that placed protectionism among the three most important factors limiting access to export markets.

EXPORT PROMOTION
Of a total of 300 responses in the relevant MR Set, 42 pointed to inadequate export promotion as being among the three most significant factors holding back access to export markets. Thirteen respondents voted inadequate export promotion as having the strongest impact on exports, whereas 18 and 11 respondents ranked that factor respectively as second and third in importance.

The relative importance assigned to export promotion as a decisive factor warrants a policy recommendation voiced recurrently by representatives of the private sector calling for the ratification of the proposed law on the establishment of an Export Promotion Agency in Lebanon.

NOTABLE LOW-RANKERS
Inadequate information, rules of origin, technical barriers and quality competition are four factors that were ranked quite low by respondents as factors restraining access to export markets.

FACTORS AFFECTING ACCESS TO EXPORT MARKETS

FREQUENCIES

Norms, Administrative, Price, Quality, Origin, Barriers, Protectionism, Information, Export Promotion, Other

FACTORS AFFECTING LOCAL SALES

1.3- LOCAL SALES [3]

IMPORT COMPETITION
According to 39 percent of respondents, import competition was the most important factor that affected their ability to sell on the local market, whereas 22 percent ranked import competition as the second most important factor affecting local sales. Within MR sets, import competition was viewed by 71 responses as being among the three main factors impacting sales to the local market.

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[3]   (For the complete set of ranked frequencies refer to Tables 4.A; 4.B, in Appendix D, and for the complete set of simple multiple response frequencies refer to Table 4, in Appendix E).

ILLEGAL IMPORTS
Illegal imports were ranked by 20 percent of participants as being the first most important factor affecting local sales. Another 21 percent ranked this factor as second in importance. Looking at MR sets, 53 responses placed illegal imports among the three most important factors impacting sales to the local market.

PURCHASING POWER
Of the hundred industrialists surveyed, 15 percent viewed the low purchasing power as the main factor that makes it difficult to sell on the local market. An additional 14 percent of participants stated that this factor was the second most important factor affecting local sales. Out of the 300 responses that lump the three first choices of respondents, 42 placed the low purchasing power as being among the three main challenges to local sales.
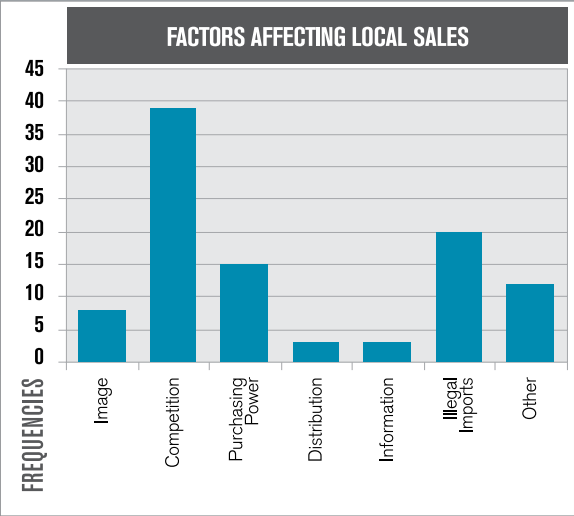
LOWEST VOTES FOR IMAGE, DISTRIBUTION NETWORKS & INFORMATION
Underdeveloped distribution networks and lack of information were viewed by only three percent of respondents as the most important factors that make it difficult to sell on the local market. The same percentage of respondents also viewed these factors as second most important.

The negative image of local production was ranked by a mere eight percent of participants as being the most important factor affecting local sales; also eight percent of participants viewed this factor as being second in importance.

ACCESS TO FINANCING

FREQUENCIES: Access, Cost, Collateral, Saving Invested, Other
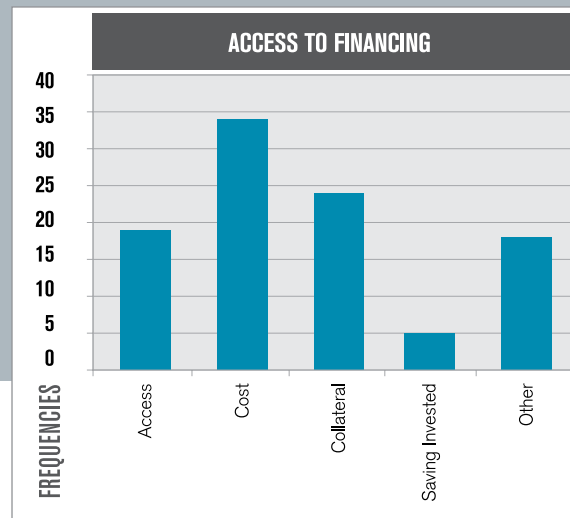
1.4- ACCESS TO FINANCING [4]

COST
The main factor making access to financing difficult according to 34 percent of respondents was the high cost of bank credit. An additional 18 percent ranked this factor as second in importance. Out of a total of 300 responses, 60 mentioned the high cost of bank credit as being among the main three factors that render access to financing challenging.

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[4]   (For the complete set of ranked frequencies refer to Tables 6.A; 6.B, in Appendix D, and for the complete set of simple multiple response frequencies refer to Table 6, in Appendix E).

COLLATERAL
To 24 percent of respondents, access to financing was a problem primarily because bank credit requires excessive collateral. The collateral constraint was ranked as second in importance by 30 percent of participants. Within MR sets, 61 responses placed collateral among the three most important factors affecting their access to financing.

SUBSIDIZED FINANCING
The limited access to subsidized financing was viewed by 19 percent of industrialists as being the major problem to financing. Another nine percent ranked this factor as being second in importance. Among the set of multiple responses, 47 responses

considered that the limited access to subsidized financing was among the three key factors affecting their access to financing.

LOWEST VOTES FOR TIED UP BUSINESS SAVINGS AND ACCESS TO SUBSIDIZED FINANCING
To a mere five percent of respondents the fact that business savings and resources were already invested is the main factor rendering access to financing problematic. The same factor was viewed in seven percent of cases as being second in importance.

Only nine percent thought that limited access to subsidized financing was the second most important problem to financing.

IMPACT OF EXCHANGE RATE FLUCTUATIONS

FREQUENCIES

- Competitive on Local Markets
- Competitive on Export Markets
- Competitive on EU Markets
- Higher-priced Raw Material
- Other

1.5- EXCHANGE RATE FLUCTUATIONS [5]

COST OF RAW MATERIALS
Significantly, some 56 percent of respondents said exchange-rate fluctuations were the most important cause for the deterioration of their competitive position due to the resulting higher cost of imported

raw materials. Within MR sets, 71 responses deemed higher-priced raw materials to be among the three main factors that worsen competitiveness as a result of foreign currency fluctuations.

LOWEST VOTES FOR COMPETITIVE PRODUCT PRICING
To eleven percent of respondents, the impact of foreign currency fluctuations was mainly a more competitive pricing of products on the local market. Also eleven percent of respondents thought that

currency fluctuations gave them primarily a better competitive position on EU markets; whereas 12 percent benefited most importantly from a better competitive position on export markets.

Exchange rate fluctuations lead to a better competitive position on EU markets according to eleven percent of respondents, whereas nine percent of respondents took the opposite view that such fluctuations worsened their competitive position due to higher-priced imports of raw materials.

5   (For the complete set of ranked frequencies refer to Tables 9.A; 9.B, in Appendix D, and for the complete set of simple multiple response frequencies refer to Table 10, in Appendix E).

LABOR PROBLEMS

FREQUENCIES	Wages, Skill, Discipline, Skill Shortage, Training, Other

(Bar chart: Wages ≈ 21, Skill ≈ 19, Discipline ≈ 20, Skill Shortage = 30, Training ≈ 4, Other ≈ 5)
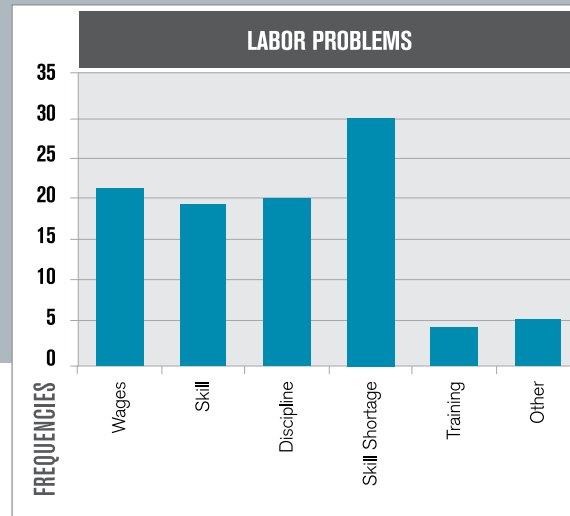
1.6- LABOR PROBLEMS [6]

SHORTAGE OF SKILLS
The shortage of required skills was viewed by 30 percent of participants as being the major problem in the labor market, whereas 21 percent ranked this factor as being second in importance and another 14 percent viewed it as being third. Among total multiple responses, 65 responses reflected the view that skill shortage was among the three main labor problems.

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6   (For the complete set of ranked frequencies refer to Tables 3.A; 3.B; 3.C, in Appendix D, and for the complete set of simple multiple response frequencies refer to Table 3, in Appendix E).

WAGES
According to 22 percent of participants, high wages was the major labor problem. In addition, eleven percent viewed high wages as the second most important factor affecting labor and 13 percent ranked this factor as third in importance. In the set of multiple responses, high wages was ranked by 46 responses among the three major problems in the labor market.

INDUSTRIAL DISCIPLINE
The most important labor problem mentioned by 20 percent of participants was the lack of industrial discipline. This factor was ranked second by 18 percent of respondents. Within MR sets, 46 responses highlighted industrial discipline as being among the first three main challenges to labor.

LOWEST VOTES FOR TECHNICAL TRAINING
Only four percent of respondents thought that labor was a problem most essentially due to lack of an adequate technical training. High wages was the second most important problem regarding labor for just eleven percent of participants. The lack of industrial discipline was ranked as third in importance in eight percent of cases.

COMPETITIVE EDGE

[Bar chart titled "COMPETITIVE EDGE" with vertical axis labeled FREQUENCIES ranging 0 to 60. Bars: Production Differentiation ≈50, Cost ≈29, Technology ≈7, Market Position ≈9, Marketing ≈4, Other ≈1]

2- OPINION

2.1- COMPETITIVE EDGE [7]

PRODUCT DIFFERENTIATION
A remarkable 50 percent respondents ranked product differentiation characteristics as being the most important factor that helps industrialists to gain a competitive edge. Another 14 percent of participants

ranked this factor as second in importance. Within MR sets, 72 responses emphasized the importance of product differentiation as being among the top three factors that give companies a competitive advantage.

COSTS
Lower costs represented the number one factor that contributes to the competitive edge for 29 percent of respondents. Another 23 percent viewed this factor as being second in importance. Among all ranked multiple responses, lower costs were ranked by 58 responses as being among the three most important factors that help in building a competitive edge.
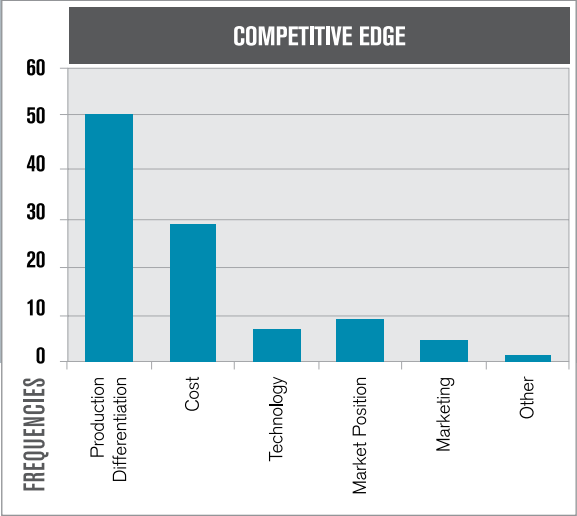
LOWEST VOTES FOR MARKETING APPROACH AND TECHNOLOGY
According to only five percent of surveyed industrialists, the marketing approach was the leading factor that helps in gaining a competitive edge.

And merely six and 13 percent of respondents ranked the technology used respectively as first and second in importance.

Eight percent of participants viewed product differentiation as third in importance; whereas eight percent ranked lower costs as also being the third most important factor.

[7]   (For the set of ranked frequencies refer to Tables 5.A; 5.B; 5.C, in Appendix the complete set of simple multiple response frequencies refer Appendix E).

IMPACT OF TRADE AGREEMENTS

Chart categories (x-axis): Arab Agreement Detrimental, Arab Agreement Favorable, EU Agreement Favorable, WTO Detrimental, ...Favorable, Bilateral Detrimental, ...ral Fvorable, Other

y-axis: FREQUENCIES (0 to 40)

2.2- IMPACT OF TRADE AGREEMENTS [8]

ARAB FREE TRADE AGREEMENT

According to 38 percent of participants, the free trade agreement with Arab countries has a favorable impact; placing this factor among the most important factor resulting from trade agreements. Within MR sets, 50 responses placed this factor among the three major impacts of trade agreements. In an opposite view,

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8   (For the complete set of ranked frequencies refer to Tables 8.A; 8.B; 8.C in Appendix D, and for the complete set of simple multiple response frequencies refer to Table 9, in Appendix E).

29 percent of respondents stated that the free trade agreement with Arab countries had a detrimental effect; while 35 responses stressed on this factor being between the major impact of trade agreements.

MIXED VIEWS ON THE IMPACT OF BILATERAL AND MULTILATERAL TRADE AGREEMENTS

Only three percent of participants ranked as a first choice bilateral trade agreements as having a detrimental impact. In contrast and within this rank, the same percentage viewed bilateral trade agreements as having a favorable impact. Also ranked as first in importance, four percent expect that accession to WTO will have a detrimental impact.
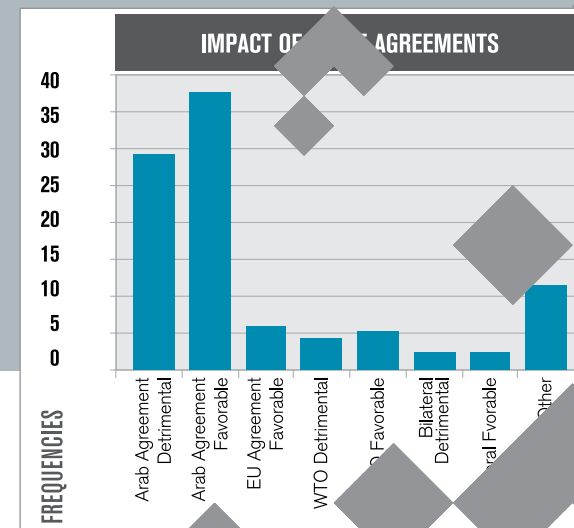
Two percent of surveyed industries think that the free trade agreement with Arab countries has a detrimental impact while six percent asserted that bilateral trade agreements have a detrimental impact. These two factors were ranked as being second in importance.

Four percent of respondents stated that Arab trade agreements have a detrimental impact while another four percent of participants thought that the opposite is true. Only two percent viewed that the EU agreement has a detrimental impact. These three factors were all ranked as third in importance.

INDUSTRIAL POLICY

FREQUENCIES — Customs, Restrictions, Free Trade, Labor Movement, Joint Ventures, Investment Incentives, Export Incentives, Low Costs, Infrastructure, IPR, R&D
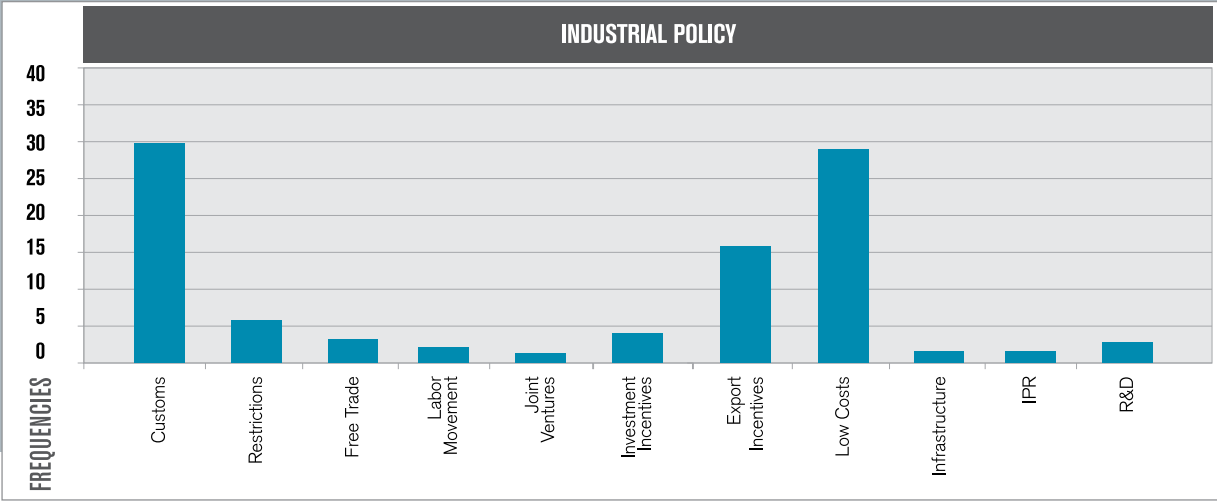
3- EXPECTATIONS

3.1- INDUSTRIAL POLICY [9]

LOCAL COSTS

To 34 percent of respondents, the most important objective industrial policy should seek to achieve is to reduce local costs. Local costs were ranked second and third in importance by respectively 16 and 18 percent of participant industrialists. Taking all ranked multiple responses, 68 asserted that seeking to lower costs should be among the most important goals of industrial policy.

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9   (For the complete set of ranked frequencies refer to Tables 7.A; 7.B; 7.C, in Appendix D, and for the complete set of simple multiple response frequencies refer to Table 8, in Appendix E).

CUSTOMS

A top priority according to 30 percent of respondents is to have a protective industrial policy though customs duties; while 42 responses ranked this feature among the three most essential features of industrial policy.

EXPORT INCENTIVES

Almost 16 percent of respondents preferred an industrial policy based export incentives while 22 and 16 percent ranked this factor as being respectively, second and third in importance. Within MR sets, 54 responses were of the opinion that industrial policy should primarily be based on export incentives.

LOWEST VOTES FOR JOINT VENTURES, INFRASTRUCTURE AND IPR

Ranked as first in importance: merely one percent of respondents wanted an industrial policy that favors joint ventures, only one percent showed interest in a policy targeting the upgrading and modernization

of infrastructure, another one percent wanted a policy that defends intellectual property rights (IPR) and two percent thought that such policy should be encouraging research and developments.

Ranked as second in importance: two percent of respondents wanted an industrial policy favoring free trade, three percent chose a policy that favors joint ventures and another three percent showed interest in a policy that defends IPR.

Three percent of respondents ranked an industrial policy favoring the free movement of labor as third in importance. Three percent also ranked third in importance the view that industrial policy should be protective through import licenses and quantitative restrictions, and four percent assigned the same rank to the demand that industrial policy should be protective through customs duties.

BUSINESS SUPPORT INSTITUTIONS

FREQUENCIES — Technical Advice, Financial Advice, Information, Market Studies, Partner Search, Training, Other
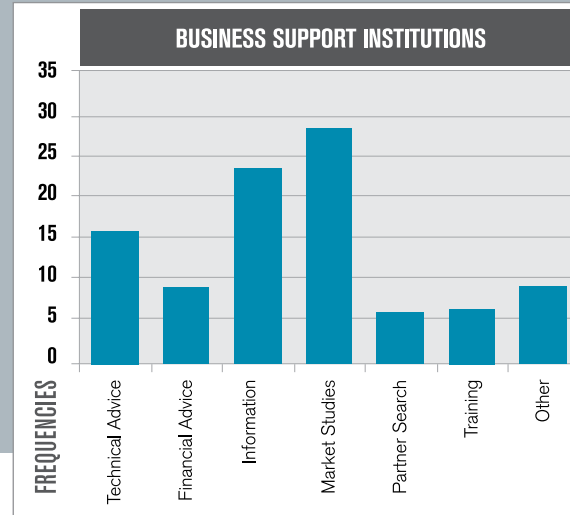
MARKET STUDIES
Market studies were ranked by 29 percent of participants as the most important assistance they expect from business support institutions. Also 35 percent of respondents viewed market studies as being second in importance while 12 percent ranked it as third. A notable number of 76 responses also required most essentially market studies from business support institutions.

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10   (For the complete set of ranked frequencies refer to Tables 6.A; 6.B; 6.C, in Appendix D, and for the complete set of simple multiple response frequencies refer to Table 7, in Appendix E).

INFORMATION
To 23 percent of respondents, business support institutions must most importantly provide information; while 14 percent and ten percent stated that information is respectively second and third in importance. Within MR sets, 47 responses outlined the crucial need for information from support institutions.

TECHNICAL ADVICE
Some 17 percent of surveyed industrialist stated that technical advice is the main type of assistance they require from support institutions. Among ranked MR sets, 40 responses stated that technical advice is between the main three functions they expect from business support institutions.

LOWEST VOTES FOR PARTNER SEARCH AND TRAINING
Partner search and training were viewed respectively by six and seven percent of respondents as being the most significant assistance they expect from business support institutions.

Only four percent of participants ranked partner search as second in importance; within the same rank, eight percent chose technical advice and seven percent chose financial advice.

Financial advice was viewed as the third most important type of support by just two percent of respondents.

BANK CREDIT AS A SOURCE OF FINANCING
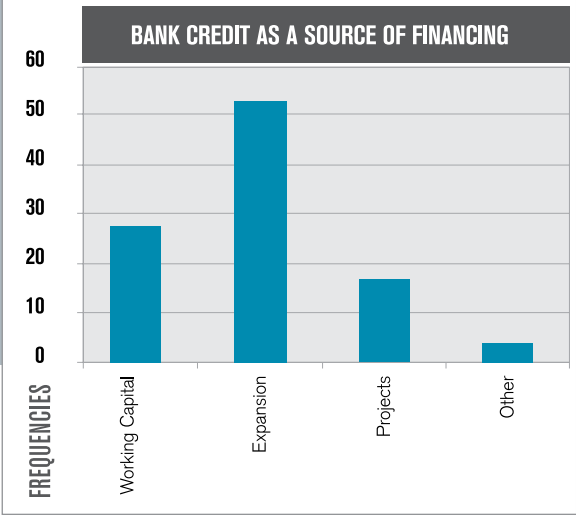
4- ENTERPRISE PLANS

4.1- BANK CREDIT [11]

FINANCING EXPANSION
Capacity expansion appears to be high on the scale of priorities to business executives participating in the survey. Some 51 percent of respondents said that

they resort to bank credit mainly in order to finance expansion of production capacity. Additionally, 27 percent of respondents said capacity expansion was the second most important reason for contracting bank loans. In the MR Set, 87 responses of a total of 300 indicated that capacity expansion is among the three main reasons for borrowing from banks.

WORKING CAPITAL
To 28 percent of respondents, bank credit is mainly used to finance working capital, whereas only six percent of respondents ranked the financing of working capital through bank credit as second in importance. According to the MR Set, a total of

55 responses pointed out that financing working capital is one of three main factors behind enterprise borrowing from banks.

NEW PROJECTS
The main reason why enterprises contract bank loans is to finance new projects, according to 17 percent of business executives who participated in the survey. And a significant 43 percent of respondents said financing new projects was second in importance among reasons that cause enterprises to borrow. Within the relevant MR Set, a total of 75 responses mentioned new project financing as one of three most important reasons for resorting to bank credit.

11　　(For the complete set of ranked frequencies refer to Tables 10.A; 10.B, in Appendix D, and for the complete set of simple multiple response frequencies refer to Table 11, in Appendix E).

EXPECTATIONS FOR LOCAL EXPANSION

FREQUENCIES

Capacity · Subcontracting · Acquisition · Partnerships · Other
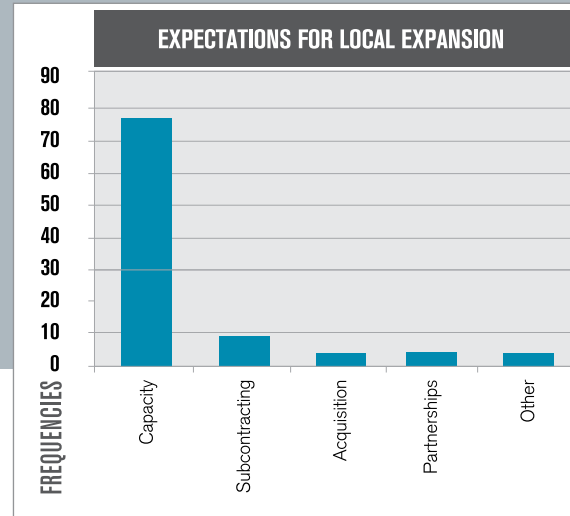
4.2- LOCAL EXPANSION [12]

CAPACITY EXPANSION

Business executives participating in the survey again assigned a high priority to capacity expansion when asked to rank elements of the strategic plans of their enterprises. Thus, more than three quarters of respondents said capacity expansion was the most important move their enterprises are contemplating within their strategy on the local market. Capacity expansion was ranked second in importance within

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12 (For the complete set of ranked frequencies refer to Tables 11.A; 11.B, in Appendix D, and for the complete set of simple multiple response frequencies refer to Table 12, in Appendix E).

business strategy by five percent of respondents. The MR Set for the local expansion variable shows that 88 responses of a total of 300 mentioned capacity expansion as being among the three most likely strategic moves enterprises will undertake in their bid to expand on the local scene.

ACQUISITIONS

Only five percent of respondents said a strategy of acquisitions was their enterprises' first option for expansion on the local market, whereas 17 percent ranked that strategy as a second option. The MR Set tally shows that 28 responses placed that strategy among the first three options considered by enterprises.

PARTNERSHIPS

As a strategic approach to local expansion, engaging in partnerships was the first option to four percent of respondents and the second option to 12 percent of respondents. A total of 24 responses mentioned the partnership approach as being among the first three that firms would consider for local expansion.

SUBCONTRACTING

Nine percent of respondents chose subcontracting as a first option in their enterprises strategic expansion on the local market, whereas six percent chose that strategy as the second option. In total, and within the MR Set, 18 responses placed subcontracting among the three most important expansion options.

EXPECTATIONS FOR INTERNATIONAL EXPANSION

4.3- INTERNATIONAL EXPANSION [13]

GLOBAL INTEGRATION
Integration within a global network as a strategic move for enterprise international expansion was chosen as the first alternative by 17 percent of participants in the survey, whereas 13 percent of respondents chose that move as a second

alternative. The MR Set for the international expansion variable indicates that 36 responses of a total of 300 referred to integration within a global network as one of the first three strategic options for enterprises in their bid for international expansion.

JOINT VENTURES
Entering into joint ventures with foreign firms was mentioned by 17 percent of respondents as being the first strategic option for the international expansion of their enterprises, and ten percent of respondents selected that option as second in importance. A total

of 33 responses considered that option to be among the first three for international expansion, according to the MR Set tally.

DE-LOCATION
Another 17 percent of respondents said de-location was the first expansion option their enterprises would consider. Eight percent said that alternative was second on their list of expansion options. In the MR Set, 31 responses mentioned de-location as a strategic move among the top three such moves enterprises would examine for international expansion.

C- Interpretation of crosstab frequencies

Crosstabulation frequencies show the number and the percentage of responses that chose concurrently a variable from a multiple response set and another variable from another multiple response set.

Obviously, not all intersections of variables have frequencies that are large enough to warrant attention. For the description of crosstab frequencies, three intersections were chosen that have the largest number of responses[14].

o   Of the total number of responses, 33 chose energy as being among the first three most important factors affecting productivity <u>and</u> concurrently chose price competition as being among the first three most significant factors affecting access to export markets.

o   Thirty three responses that placed energy among the three most significant factors impacting productivity <u>also</u> placed capacity expansion among the three most significant options for their company's strategic move on the local market.

o   Of total responses that said exchange rate fluctuations were detrimental to the competitiveness because they raised raw materials prices, 33 <u>also</u> said that price competition was among the three most important factors determining access to export markets

Whether significantly large or not, frequencies in variable intersections do not necessarily reflect causality; hence, data interpretation might not allow for an economic interpretation.

14   All three intersections happen to have 33 responses by coincidence

D- The tally of free-hand responses

Eleven multiple response sections included the option for respondents to add a variable of their own description to the list of variables specified by the questionnaire. Because they are disparate, these free-hand descriptions cannot be processed by the software application. Technically, they may be viewed as having a frequency of one each and a rank as assigned by respondents. The following tally arranges these responses by multiple response section and by rank.

PRODUCTIVITY
Production know-how
More lower priced imports coming to the local market
Need for stable power supply

ACCESS TO EXPORT MARKETS
Trade deals
High shipping costs
The absence of commercial attachés in Lebanese embassies abroad
No protection for exports
High port fees
High transportation costs
Lack of subsidies to participation in trade fairs
Lack of export incentives

LABOR PROBLEMS
Gender related problems (in assigning night shifts for example)
Labor shortage
High formality fees for foreign labor
Impediments to employment of foreign skilled labor

DIFFICULTIES SELLING ON THE LOCAL MARKET
Intellectual property rights protection
Weak local demand
Unfair competition due to subsidized imports
VAT should be abandoned
Inability of the public administration to enforce product specifications
No control on small local producers
High production cost
Intense competition among local producers
Inability of consumers to evaluate product quality

COMPETITIVE EDGE
Innovation
Licensed products
Economies of scale
Market experience

EXPECTATIONS FROM BUSINESS SUPPORT INSTITUTIONS
Facilitating dealings with the public administration (fiscal, social security, taxes)
Facilitating contacts with foreign importers

EXPECTATIONS FROM INDUSTRIAL POLICY
Reducing energy costs
Protective industrial policy

IMPACT OF TRADE AGREEMENTS
Free trade area with Turkey is detrimental

04

COMPARING THE 2004 AND 2011 SURVEY RESULTS

THE COMPARISON OF RESULTS DERIVED FROM INDUSTRIAL SURVEY 2004 (IS-2004) AND INDUSTRIAL SURVEY 2011(IS-2011), TWO EXECUTIVE OPINION SURVEYS CONDUCTED SEVEN YEARS APART, MAY HAVE THE ADVANTAGE OF HIGHLIGHTING PERSISTENT CONCERNS AND UNCHANGED OPINIONS AND EXPECTATIONS.

THE PERSISTENCE IN VOICING THE SAME CONCERNS IS INDICATIVE OF THE DETERMINED VIEWS INDUSTRIALISTS HOLD ABOUT THE NEED TO ADDRESS THE ACTIVITY'S PROBLEMS.

UNCHANGED VIEWS

Unchanged over the seven-year period is the view held by a significant 56 percent of respondents in both IS-2004 and IS-2011 that exchange-rate fluctuations worsened the competitive position of industrialists due to higher-priced imports of raw materials.

Also significant is the view held by 50 percent of respondents in both surveys that, more than any other factor, product characteristics was the most important factor to confer competitive edge. Lower costs ranked second in both surveys according to comparable percentages of respondents (28 percent in IS-2004 and 29 percent in IS-2011).

In IS-2004, 42 percent of respondents viewed import competition as the most important factor affecting their position on the local market. A comparably high proportion of respondents in IS-2011 (39 percent) held the same opinion.

Price competition was deemed as the most important factor affecting access to export markets by 44 percent of respondents in IS-2004 and by 52 percent of respondents in IS-2011.

A third of respondents in IS-2004 said market studies were the most important service they expected business support institutions to render. In IS-2011 a comparable 29 percent of the respondents' votes went in that same direction.

CHANGED VIEWS

Understandably, expensive bank credit was mentioned by 53 percent of respondents in IS-2004 as being the most significant factor impacting access to financing. Frequency on that count fell to 34 percent in IS-2011. The explanation of this marked change may reside in the fact that bank lending rates have gone down over the seven-year period separating the two executive opinion surveys.

In IS-2004, high wages were assigned more importance as a major factor contributing to labor problems as 42 percent of respondents held this view, whereas in IS-2011 only 22 percent of respondents held that view.

	PERCENTAGE IN 2004	PERCENTAGE IN 2011
SIZE OF LABOR FORCE		
Less than 10	6%	---
10 to 30	17%	19%
30 to 100	**31%**	**35%**
100 to 250	19%	22%
More than 250	22%	24%
LOCATION		
Beirut & Mount Lebanon	**83%**	**81%**
Bekaa	14%	10%
North Lebanon	0%	5%
South Lebanon	0%	4%
PRODUCTIVITY		
High cost of energy	**56%**	**43%**
Sub-optimal production volume	14%	3%
Inefficient public administration	11%	4%
ACCESS TO EXPORT MARKETS		
Price competition	**44%**	**52%**
Administrative impediments	28%	9%
Protectionist measures	11%	10%
LABOR PROBLEMS		
High wages	**42%**	22%
Lack of industrial discipline	22%	20%
Low level of skills	17%	30%
POSITION ON THE LOCAL MARKET		
Import competition	**42%**	**39%**
Low purchasing power	25%	15%
Illegal imports	17%	20%
COMPETITIVE EDGE		
Product characteristics	**50%**	**50%**
Lower costs	28%	29%
Marketing approach	6%	5%
ACCESS TO FINANCING		
Bank credit is expensive	**53%**	**34%**
Access to subsidized financing is limited	25%	19%
Bank credit requires excessive collateral	6%	24%
Own resources are already invested	6%	5%

The comparison of the two surveys also revealed a significant discrepancy in responses pertaining to expectations from industrial policy. In IS-2004, 44 percent of industrialists surveyed said they expected industrial policy to seek to reduce local costs. Respondents with the same view represented only 34 percent of survey participants in IS-2011.

It is worth noting that on the three counts above, cost factors (cost of bank credit; labor costs; local costs in general) got less votes as pressing problems in IS-2011 as compared to IS-2004.

	PERCENTAGE IN 2004	PERCENTAGE IN 2011
BUSINESS SUPPORT INSTITUTIONS		
Market studies	**33%**	**29%**
Technical advice	19%	17%
Information	19%	23%
Financial advice	8%	9%
INDUSTRIAL POLICY		
Seeking to reduce local costs	**44%**	**34%**
Protective through customs duties	28%	30%
Favoring free trade	8%	3%
IMPACT OF TRADE AGREEMENTS		
Free Trade agreement with Arab countries has a detrimental impact	**39%**	**29%**
Free Trade agreement with Arab countries has a favorable impact	28%	38%
Euro Med agreement has a favorable impact	8%	6%
	Euro's appreciation	Exchange rate fluctuations[15]
Worsened competitive position due to higher-priced imports of raw materials	**56%**	**56%**
Better competitive position on export markets	17%	12%
Better competitive position on EU markets	8%	11%
More competitive pricing of products on the local market	8%	11%

15   In the 2011 survey, the respondents were asked about the impact of foreign currency fluctuations. The question was based on the same multiple response factors used in the 2004 survey.

1. SIZE OF LABOR FORCE:	١. حجم القوة العاملة
☐ Less than 10	أقل من ١٠ عمال ☐
☐ Between 10 and 30	بين ١٠ و ٣٠ عامل ☐
☐ Between 30 and 100	بين ٣٠ و ١٠٠ عامل ☐
☐ Between 100 and 250	بين ١٠٠ و ٢٥٠ عامل ☐
☐ More than 250	أكثر من ٢٥٠ عامل ☐

2. LOCATION	٢. الموقع الجغرافي
☐ Beirut	بيروت ☐
☐ Mount Lebanon	جبل لبنان ☐
☐ North Lebanon	شمال لبنان ☐
☐ Bekaa	البقاع ☐
☐ South Lebanon	جنوب لبنان ☐

3. SECTOR OF ACTIVITY	٣. النشاط الصناعي
☐ Food processing	الصناعة الغذائية ☐
☐ Construction materials	مواد البناء ☐
☐ Electrical equipment	التجهيزات الكهربائية ☐
☐ Jewelry	المجوهرات ☐
☐ Industrial machinery	الآلات الصناعية ☐
☐ Textiles, clothing, leather, footwear	المنسوجات، الملابس، الجلود و الأحذية ☐
☐ Chemical	الصناعة الكيميائية ☐
☐ Paper and packaging	الورق والتغليف ☐
☐ Printing	الطباعة ☐
☐ Furniture	المفروشات ☐
☐ Other	غيره ☐

4. MARKETS:	٤. الأسواق
☐ % of production sold locally	٪ من الإنتاج يتم بيعه في السوق المحلي ☐
☐ % of local production	٪ من الانتاج المحلي ☐
☐ % of production exported	٪ من الإنتاج يتم تصديره ☐

Rank by order of importance (from 1 to 3), questions 5 to 16	رتب الإجابات التالية حسب الأهمية (من ١ الى ٣)، الاسئلة من ٥ الى ١٦
5. IS PRODUCTIVITY LESS THAN WHAT YOU DESIRE IT TO BE DUE TO:	٥. هل تعتقد أن السبب في تدني مستوى الإنتاجية عما تطمح إليه يعود لـ:
☐ Labor	البد العاملة ☐
☐ High cost of energy	إرتفاع كلفة الطاقة ☐
☐ Inadequate infrastructure	بنية تحتية غير متطوّرة ☐
☐ Expensive raw materials	إرتفاع أسعار المواد الأولية ☐
☐ An inefficient public administration	إنعدام الفعالية في الإدارة العامة ☐
☐ Corruption in public administration	الفساد في الإدارة العامة ☐
☐ Sub-optimal production volume	مستوى الحجم الأمثل للإنتاج ☐
☐ Technology used	التكنولوجيا المستخدمة ☐
☐ Other:	غيره: ☐

6. IS ACCESS TO EXPORT MARKETS DIFFICULT AND/OR MORE COSTLY DUE TO:	٦. هل تعتقد أن الصعوبة و/أو إرتفاع كلفة الوصول إلى أسواق التصدير تعود لـ:
☐ Obligation to comply with product norms, standards & technical specifications	ضرورة إلتزام الإنتاج بالمواصفات والمقاييس والمعايير التقنية ☐
☐ Administrative impediments	العوائق الإدارية ☐
☐ Price competition	المنافسة في الأسعار ☐
☐ Quality competition	المنافسة في الجودة ☐
☐ Rules of origin	قواعد المنشأ ☐
☐ Technical barriers	العوائق التقنية ☐
☐ Protectionist measures	إجراءات الحماية ☐
☐ Inadequate information	معلومات غير كافية ☐
☐ Inadequate export promotion	ضعف في الترويج للتصدير ☐
☐ Other:	غيره: ☐

7. Is labor a problem due to:	٧. هل تعتقد أن مشكلة اليد العاملة تكمن في
☐ High wages	إرتفاع قيمة الأجر ☐
☐ Low level of skill	تدني مستوى المهارات ☐
☐ Lack of industrial discipline	غياب النظام الصناعي ☐
☐ Shortage of required skills	نقص في مجال المهارات المطلوبة ☐
☐ Inadequate technical training	تدريب تقني غير ملائم للاحتياجات ☐
☐ Other:	غيره: ☐

8. Do you find difficulties selling on the local market due to:	٨. هل تجد أن الصعوبة في تصريف الإنتاج داخل السوق المحلي تعود لـ:
☐ Negative image of local production	الصورة السلبية عن الإنتاج المحلي ☐
☐ Import competition	المنافسة مع البضائع المستوردة ☐
☐ Low purchasing power	ضعف القدرة الشرائية ☐
☐ Underdeveloped distribution networks	ضعف شبكات التوزيع ☐
☐ Lack of information	نقص في المعلومات ☐
☐ Illegal imports	عدم شرعية دخول بعض المستوردات (التهريب) ☐
☐ Other:	غيره: ☐

9. Do you think your competitive edge lies in:	٩. هل تعتقد أن الحد التنافسي يعتمد على :
☐ Product differentiation and characteristics	تميز وخصائص المنتوج ☐
☐ Lower costs	تدني التكاليف ☐
☐ Technology used	التكنولوجيا المستخدمة ☐
☐ Market position	وضع السوق ☐
☐ Marketing approach	المقاربة التسويقية ☐
☐ Other:	غيره: ☐

10. Is access to financing a problem because:	١٠. هل تعتقد بوجود مشكلة في الحصول على التمويل بسبب:
☐ Access to subsidized financing is limited	صعوبة الحصول على التمويل المدعوم ☐
☐ Bank credit is expensive	إرتفاع كلفة القروض المصرفية ☐
☐ Bank credit requires excessive collateral	ضرورة توفير ضمانات عديدة للقروض المصرفية ☐
☐ Own resources and business savings are already invested	سبق وتم إستثمار موارد ومدخرات المؤسسات ☐
☐ Other	غيره : ☐

11. WHAT DO YOU EXPECT FROM BUSINESS SUPPORT INSTITUTIONS:

- ☐ Technical advice
- ☐ Financial advice
- ☐ Information
- ☐ Market studies
- ☐ Partner search
- ☐ Training
- ☐ Other:

12. WHAT INDUSTRIAL POLICY DO YOU WANT TO SEE APPLIED:

- ☐ Protective through customs duties
- ☐ Protective through import licenses & quantitative restrictions
- ☐ Favoring free trade
- ☐ Favoring free movement of labor
- ☐ Favoring joint ventures
- ☐ Based on incentives to investments
- ☐ Based on export incentives
- ☐ Seeking to reduce local costs
- ☐ Targeting the upgrading and modernization of infrastructure
- ☐ Defending intellectual property rights
- ☐ Encouraging research and development
- ☐ Other:

13. WHAT IMPACT DO TRADE AGREEMENTS HAVE ON YOUR SECTOR OF ACTIVITY:

- ☐ The free trade agreement with Arab countries has a detrimental impact
- ☐ The free trade agreement with Arab countries has a favorable impact
- ☐ The Euro Med agreement has a detrimental impact
- ☐ The Euro Med agreement has a favorable impact
- ☐ Accession to the WTO is expected to have a detrimental impact
- ☐ Accession to the WTO is expected to have a favorable impact
- ☐ Bilateral agreements have a detrimental impact
- ☐ Bilateral agreements have a favorable impact
- ☐ Other:

١١. ماذا تتوقع من مؤسسات دعم قطاع الأعمال ؟

- ☐ الإرشاد التقني
- ☐ الإستشارة المالية
- ☐ المعلومات
- ☐ دراسات السوق
- ☐ البحث عن شركاء
- ☐ التدريب
- ☐ غيره:

١٢. أية سياسة صناعية تود أن يتم تطبيقها ؟

- ☐ الحمائية من خلال القيود الجمركية
- ☐ الحمائية من خلال شهادات الإستيراد والقيود الكمية
- ☐ تفضيل للتجارة الحرة
- ☐ تفضيل لحرية حركة اليد العاملة
- ☐ تفضيل المشاريع المشتركة
- ☐ الإعتماد على تحفيز الإستثمار
- ☐ الإعتماد على تحفيز التصدير
- ☐ السعي لتخفيض الكلفة المحلية
- ☐ السياسة الهادفة لتطوير وتحديث البنية التحتية
- ☐ الدفاع عن حقوق الملكية
- ☐ تشجيع الأبحاث والتطوير
- ☐ غيره:

١٣. ما هو تأثير الإتفاقات التجارية على نشاطك الصناعي:

- ☐ تأثير سلبي لإتفاقية التجارة الحرة مع الدول العربية
- ☐ تأثير إيجابي لإتفاقية التجارة الحرة مع الدول العربية
- ☐ تأثير سلبي لإتفاقية الشراكة الأوروبية
- ☐ تأثير إيجابي لإتفاقية الشراكة الأوروبية
- ☐ تأثير سلبي لإنضمام لبنان إلى منظمة التجارة العالمية
- ☐ تأثير إيجابي لإنضمام لبنان إلى منظمة التجارة العالمية
- ☐ تأثير سلبي للإتفاقات التجارية الثنائية
- ☐ تأثير إيجابي للإتفاقات التجارية الثنائية
- ☐ غيره

14. HOW DO FOREIGN CURRENCY FLUCTUATIONS AFFECT YOUR BUSINESS:	١٤. ما مدى تأثير التغيرات في العملات الاجنبية على وضع مؤسستك:

- ☐ More competitive pricing of products on the local market
- ☐ Better competitive position on export markets
- ☐ Better competitive position on EU markets
- ☐ Worsened competitive position due to higher-priced imports of raw materials
- ☐ Other:

☐ تنافسية أكبر لسعر السلع داخل السوق المحلي
☐ وضع تنافسي أفضل في أسواق التصدير
☐ وضع تنافسي أفضل في الأسواق الأوروبية
☐ وضع تنافسي أسوأ بسبب إرتفاع أسعار المواد الخام المستوردة
☐ غيره

15. WHEN DO YOU USE BANK CREDIT AS A SOURCE OF FINANCING:	١٥. في أية حالة تلجأ التسليف المصرفي:

- ☐ To finance working capital
- ☐ To finance expansion
- ☐ To finance new projects
- ☐ Other:

☐ لتمويل رأس المال العامل
☐ لتمويل التوسع في النشاط الصناعي
☐ لتمويل مشاريع جديدة
☐ غيره

16. WHAT ARE YOUR PROSPECTS ABOUT THE COMPANY'S FUTURE STRATEGIC MOVES:	١٦. ما هي توقعاتك حول التحركات الاستراتيجية للشركة في المستقبل:

a) Local expansion:
- ☐ Expansion of capacity
- ☐ Subcontracting
- ☐ Acquisition
- ☐ Partnerships

b) International expansion:
- ☐ Franchise
- ☐ Integration in a global network
- ☐ Joint venture
- ☐ Outsourcing
- ☐ De-location

ا) توسع محلي:
☐ التوسع في الطاقة الانتاجية
☐ التعاقد الفرعي
☐ اكتساب شركات اخرى
☐ شراكة

ب) التوسع الدولي:
☐ امتيازات
☐ الانخراط في شبكات عالمية
☐ مشاريع مشتركة
☐ الاستعانة بقدرات إنتاجية خارجية
☐ نقل قسم من النشاط الصناعي الى الخارج

17. To what extent does the company resort to external financing:	١٧. الى اي حدّ تلجأ الشركة الى مصدر تمويل خارجي:

- ☐ Extensively
- ☐ Moderately
- ☐ Minimally

☐ كبير
☐ متوسط
☐ بسيط

APPENDIX B
PROFILES OF PARTICIPANT ENTERPRISES

LOCATION

	Frequency	Percent
Beirut and Mount Lebanon	81	81.0
North Lebanon	5	5.0
Bekaa	10	10.0
South Lebanon	4	4.0
Total	100	100.0

Table 1: The location of respondent companies

SECTORS OF ACTIVITY

	Frequency	Percent
Food	30	30.0
Construction materials	16	16.0
Electrical	9	9.0
Machinery	3	3.0
Textiles	5	5.0
Chemical	10	10.0
Paper	9	9.0
Printing and publishing	3	3.0
Furniture	5	5.0
Plastics	6	6.0
Metal works	1	1.0
Cosmetics	2	2.0
Ammunitions	1	1.0
Total	100	100.0

Table 2: Sectors of activity of respondent companies

LABOR FORCE

	Frequency	Percent
between 10 and 30	19	19.0
between 30 and 100	35	35.0
between 100 and 250	22	22.0
more than 250	24	24.0
Total	100	100.0

Table 3: Size of labor force of respondent companies

APPENDIX C
STRUCTURE OF THE QUESTIONNAIRE AND DATA PROCESSING METHODOLOGY

The first three sections are intended to obtain basic information on responding enterprises namely, size of labor force, geographical location and sector of activity. A fourth section seeks to identify the enterprise's main market orientation between local sales and exports. The processing of answers to these sections is straightforward. Results are examined in the main text.

The core of the questionnaire consists of 13 multiple response (MR) sections that include a total of 78 questionnaire-specified multiple response variables (MRVs), that is an average of six variables per MR section. Eleven of the MR sections include an option for respondents to add a variable to their selection. These additional variables were all coded as 'other' and were processed qualitatively.

RANKED MULTIPLE RESPONSE VARIABLES
The questionnaire asked respondents to choose, within each of the 13 MR sections, three MRVs and rank these choices by order of importance. This feature dictated the application of a three-stage data processing technique that differs from the typical technique appropriate to the processing of simple, non-ranked MR choices.

The ranking of MRVs, though entailing multi-part processing, produces more detailed results that render data and sectoral analysis more specific about the frequency weight of each variable.

THE PROCESSING OF RANKED MULTIPLE RESPONSE VARIABLES
The approach to processing ranked MRVs starts at the variable-coding level, whereby for each MR section of the questionnaire three separate but identical coding schemes are constructed on the 'Variable' sheet. Each of these three schemes relates to the rank-by-importance of responses.

At the data-entry stage, this requires that for each MR section, variables chosen by each respondent as ranking first, second and third in importance would appear as such in the 'Data' sheet.

At the data-processing stage, three separate frequency tables are reproduced for each MR section. Thus, for each section, a table tallies the frequency distribution of variables chosen as first-ranking, another table is drawn for the distribution of second-ranking variables, and a third table for the distribution third-ranking variables.

In that sense, the frequency tables derived from this multi-stage processing, allow for a more detailed evaluation of the relative importance of each variable in the opinion of respondents. (Refer to description in the main text.)

APPENDIX D
RANKED FREQUENCIES

The set of ranked frequencies associated with each dependent variable is presented in three tables. The first table displays the frequencies and the percentages of respondents that chose each of the listed factors as being first in importance. The second and the third tables show respectively the second and the third most important factors ranked by participants.

FACTORS AFFECTING PRODUCTIVITY

1ST CHOICE	Frequency	Percent
labor	22	22.0
energy	43	43.0
infrastructure	4	4.0
raw materials	19	19.0
inefficient administration	4	4.0
corrupt administration	0	0.0
suboptimal production	3	3.0
technology	3	3.0
N/A	2	2.0
Total	100	100.0

Table 1. A: Most important factors affecting productivity according to respondents

2ND CHOICE	Frequency	Percent
labor	16	16.0
energy	29	29.0
infrastructure	12	12.0
raw materials	22	22.0
inefficient administration	5	5.0
corrupt administration	6	6.0
suboptimal production	4	4.0
technology	2	2.0
N/A	4	4.0
Total	100	100.0

Table 1. B: Second most important factors affecting productivity according to respondents

3RD CHOICE	Frequency	Percent
labor	15	15.0
energy	6	6.0
infrastructure	12	12.0
raw materials	19	19.0
inefficient administration	10	10.0
corrupt administration	4	4.0
suboptimal production	5	5.0
technology	7	7.0
N/A	22	22.0
Total	100	100.0

Table 1. C: Third most important factors affecting productivity according to respondents

FACTORS AFFECTING ACCESS TO EXPORT MARKETS

1ST CHOICE	Frequency	Percent
norms	5	5.0
administrative	9	9.0
price	52	52.0
quality	3	3.0
origin	2	2.0
barriers	2	2.0
protectionism	10	10.0
information	1	1.0
export promotion	13	13.0
N/A	3	3.0
Total	100	100.0

Table 2. A: Most important factors affecting access to export markets according to respondents

2ND CHOICE	Frequency	Percent
norms	2	2.0
administrative	4	4.0
price	22	22.0
quality	6	6.0
origin	4	4.0
barriers	3	3.0
protectionism	27	27.0
information	5	5.0
export promotion	18	18.0
N/A	9	9.0
Total	100	100.0

Table 2. B: Second most important factors affecting access to export markets according to respondents

3RD CHOICE	Frequency	Percent
norms	6	6.0
administrative	12	12.0
price	7	7.0
quality	7	7.0
origin	2	2.0
barriers	4	4.0
protectionism	10	10.0
information	2	2.0
export promotion	11	11.0
N/A	39	39.0
Total	100	100.0

Table 2. C: Third most important factors affecting access to export markets according to respondents

LABOR PROBLEMS

1ST CHOICE	Frequency	Percent
wages	22	22.0
skill	19	19.0
discipline	20	20.0
skill shortage	30	30.0
training	4	4.0
N/A	5	5.0
Total	100	100.0

Table 3. A: Most important factors affecting labor problems according to respondents

2ND CHOICE	Frequency	Percent
wages	11	11.0
skill	18	18.0
discipline	18	18.0
skill shortage	21	21.0
training	13	13.0
N/A	19	19.0
Total	100	100.0

Table 3. B: Second most important factors affecting labor problems according to respondents

3RD CHOICE	Frequency	Percent
wages	13	13.0
skill	11	11.0
discipline	8	8.0
skill shortage	14	14.0
training	21	21.0
N/A	33	33.0
Total	100	100.0

Table 3. C: Third most important factors affecting labor problems according to respondents

FACTORS AFFECTING LOCAL SALES

1ST CHOICE	Frequency	Percent
image	8	8.0
competition	39	39.0
purchasing power	15	15.0
distribution	3	3.0
information	3	3.0
illegal imports	20	20.0
N/A	12	12.0
Total	100	100.0

Table 4. A: Most important factors affecting local sales according to respondents

2ND CHOICE	Frequency	Percent
image	8	8.0
competition	22	22.0
purchasing power	14	14.0
distribution	3	3.0
information	3	3.0
illegal imports	21	21.0
N/A	29	29.0
Total	100	100.0

Table 4. B: Second most important factors affecting local sales according to respondents

COMPETITIVE EDGE

1ST CHOICE	Frequency	Percent
product differentiation	50	50.0
cost	29	29.0
technology	6	6.0
market position	9	9.0
marketing	5	5.0
N/A	1	1.0
Total	100	100.0

Table 5. A: Most important factors affecting gaining a competitive edge according to respondents

2ND CHOICE	Frequency	Percent
product differentiation	14	14.0
cost	23	23.0
technology	13	13.0
market position	22	22.0
marketing	15	15.0
N/A	13	13.0
Total	100	100.0

Table 5. B: Second most important factors affecting gaining a competitive edge according to respondents

3RD CHOICE	Frequency	Percent
product differentiation	8	8.0
cost	6	6.0
technology	18	18.0
market position	21	21.0
marketing	13	13.0
N/A	34	34.0
Total	100	100.0

Table 5. C: Third most important factors affecting gaining a competitive edge according to respondents

ACCESS TO FINANCING

1ST CHOICE	Frequency	Percent
access	19	19.0
cost	34	34.0
collateral	24	24.0
savings invested	5	5.0
N/A	18	18.0
Total	100	100.0

Table 6. A: Most important factors affecting access to financing according to respondents

2ND CHOICE	Frequency	Percent
access	9	9.0
cost	18	18.0
collateral	30	30.0
savings invested	7	7.0
N/A	36	36.0
Total	100	100.0

Table 6. B: Second most important factors affecting access to financing according to respondents

BUSINESS SUPPORT INSTITUTIONS

1ST CHOICE	Frequency	Percent
technical advice	17	17.0
financial advice	9	9.0
information	23	23.0
market studies	29	29.0
partner search	6	6.0
training	7	7.0
N/A	9	9.0
Total	100	100.0

Table 7. A: Most important expectations from business support institutions according to respondents

2ND CHOICE	Frequency	Percent
technical advice	8	8.0
financial advice	7	7.0
information	14	14.0
market studies	35	35.0
partner search	4	4.0
training	13	13.0
N/A	19	19.0
Total	100	100.0

Table 7. B: Second most important expectations from business support institutions according to respondents

3RD CHOICE	Frequency	Percent
technical advice	15	15.0
financial advice	2	2.0
information	10	10.0
market studies	12	12.0
partner search	11	11.0
training	13	13.0
N/A	37	37.0
Total	100	100.0

Table 7. C: Third most important expectations from business support institutions according to respondents

INDUSTRIAL POLICY

1ST CHOICE	Frequency	Percent
customs	30	30.0
restrictions	6	6.0
free trade	3	3.0
labor movement	2	2.0
joint ventures	1	1.0
Investment incentives	4	4.0
export incentives	16	16.0
local costs	34	34.0
infrastructure	1	1.0
IPR	1	1.0
R&D	2	1.0
Total	100	100.0

Table 8. A: Most important expectations from industrial policy according to respondents

2ND CHOICE	Frequency	Percent
customs	8	8.0
restrictions	6	6.0
free trade	2	2.0
labor movement	9	9.0
joint ventures	3	3.0
investment incentives	7	7.0
export incentives	22	22.0
local costs	16	16.0
infrastructure	10	10.0
IPR	3	10.0
R&D	4	3.0
N/A	9	14.0
Total	100	100.0

Table 8. B: Second most important expectations from industrial policy according to respondents

3RD CHOICE	Frequency	Percent
customs	4	4.0
restrictions	3	3.0
labor movement	3	3.0
investment incentives	14	14.0
export incentives	16	16.0
local costs	18	18.0
infrastructure	11	11.0
IPR	5	5.0
R&D	14	14.0
N/A	12	12.0
Total	100	100.0

Table 8. C: Third most important expectations from industrial policy according to respondents

IMPACT OF TRADE AGREEMENTS

1ST CHOICE	Frequency	Percent
Arab agreements detrimental	29	29.0
Arab agreements favorable	38	38.0
EU agreement favorable	6	6.0
WTO detrimental	4	4.0
WTO favorable	5	5.0
bilateral detrimental	3	3.0
bilateral favorable	3	3.0
N/A	12	12.0
Total	100	100.0

Table 9. A: Most important impacts of trade agreements according to respondents

2ND CHOICE	Frequency	Percent
Arab agreements detrimental	2	2.0
Arab agreements favorable	8	8.0
EU agreement detrimental	10	10.0
EU agreement favorable	23	23.0
WTO detrimental	10	10.0
WTO favorable	9	9.0
bilateral detrimental	6	6.0
bilateral favorable	8	8.0
N/A	24	24.0
Total	100	100.0

Table 9. B: Second most important impacts of trade agreements according to respondents

3RD CHOICE	Frequency	Percent
Arab agreements detrimental	4	4.0
Arab agreements favorable	4	4.0
EU agreement detrimental	2	2.0
EU agreement favorable	7	7.0
WTO detrimental	10	10.0
WTO favorable	15	15.0
bilateral detrimental	11	11.0
bilateral favorable	6	6.0
N/A	41	41.0
Total	100	100.0

Table 9. C: Third most important impacts of trade agreements according to respondents

IMPACT OF EXCHANGE RATE FLUCTUATIONS

1ST CHOICE	Frequency	Percent
competitive on local market	11	11.0
competitive on export markets	12	12.0
competitive on EU markets	11	11.0
higher-priced raw materials	56	56.0
N/A	10	10.0
Total	100	100.0

Table 10. A: Most important impact of exchange rate fluctuations according to respondents

2ND CHOICE	Frequency	Percent
competitive on local market	13	13.0
competitive on export markets	13	13.0
competitive on EU markets	11	11.0
higher-priced raw materials	9	9.0
N/A	54	54.0
Total	100	100.0

Table 10. B: Second most important impact of exchange rate fluctuations according to respondents

BANK CREDIT AS A SOURCE OF FINANCING

1ST CHOICE	Frequency	Percent
working capital	28	28.0
expansion	51	51.0
projects	17	17.0
N/A	4	4.0
Total	100	100.0

Table 11. A: Most important reasons for the use of bank credit as a source of financing according to respondents

2ND CHOICE	Frequency	Percent
working capital	6	6.0
expansion	27	27.0
projects	43	43.0
N/A	24	24.0
Total	100	100.0

Table 11 B: Second most important reasons for the use of bank credit as a source of financing according to respondents

EXPECTATIONS FOR LOCAL EXPANSION

1ST CHOICE	Frequency	Percent
capacity	77	77.0
subcontracting	9	9.0
acquisition	5	5.0
partnerships	4	4.0
N/A	5	5.0
Total	100	100.0

Table 12. A: Most important prospects for local expansion according to respondents

2ND CHOICE	Frequency	Percent
capacity	5	5.0
subcontracting	6	6.0
acquisition	17	17.0
partnerships	12	12.0
N/A	60	60.0
Total	100	100.0

Table 12. B: Second most important prospects for local expansion according to respondents

EXPECTATIONS FOR INTERNATIONAL EXPANSION

1ST CHOICE	Frequency	Percent
franchise	12	12.0
global integration	17	17.0
joint venture	17	17.0
outsourcing	12	12.0
de-location	17	17.0
N/A	25	25.0
Total	100	100.0

Table 13. A: Most important prospects for international expansion according to respondents

2ND CHOICE	Frequency	Percent
franchise	6	6.0
global integration	13	13.0
joint venture	10	10.0
outsourcing	8	8.0
de-location	8	8.0
N/A	55	55.0
Total	100	100.0

Table 13. B: Second most important prospects for international expansion according to respondents

EXTERNAL FINANCING

	Frequency	Percent
extensively	8	8.0
moderately	40	40.0
minimally	38	38.0
N/A	14	14.0
Total	100	100.0

Table 14: Extent of use of external financing

APPENDIX E
SIMPLE MULTIPLE RESPONSE FREQUENCIES

The following tables represent simple multiple response frequencies; they illustrate the number and the percentage of responses that ranked each factor between the most three important factors affecting the dependent variable in question.

FACTORS AFFECTING PRODUCTIVITY

	Responses	
	N	Percent
Labor	53	17.7%
High cost of energy	78	26.0%
Inadequate infrastructure	28	9.3%
Expensive raw materials	60	20.0%
Inefficient public administration	19	6.3%
Corrupt public administration	10	3.3%
Suboptimal production volume	12	4.0%
Technology	12	4.0%
N/A	28	6.7%
Total	300	100.0%

Table 1: Simple MR frequencies of factors affecting productivity

FACTORS AFFECTING ACCESS TO EXPORT MARKETS

	Responses	
	N	Percent
Obligation to comply with technical specifications	13	4.3%
Administrative impediments	25	8.3%
Price competition	81	27.0%
Quality competition	16	5.3%
Rules of origin	8	2.7%
Technical barriers	9	3.0%
Protectionist measures	47	15.7%
Inadequate information	8	2.7%
Inadequate export promotion	42	14.0%
N/A	51	17.0%
Total	300	100.0%

Table 2: Simple MR frequencies of factors affecting access to export markets

LABOR PROBLEMS

	Responses	
	N	Percent
High wages	46	15.3%
Low level of skill	48	16.0%
Lack of industrial discipline	46	15.3%
Shortage of required skills	65	21.7%
Inadequate technical training	38	12.7%
N/A	57	19.0%
Total	300	100.0%

Table 3: Simple MR frequencies of labor problems

FACTORS AFFECTING LOCAL SALES

	Responses	
	N	Percent
Negative image of local production	22	7.3%
Import competition	71	23.7%
Low purchasing power	42	14.0%
Underdeveloped distribution networks	6	2.0%
Lack of information	13	4.3%
Illegal imports	53	17.7%
N/A	93	31.0%
Total	300	100.0%

Table 4: Simple MR frequencies of factors affecting local sales

FACTORS THAT HELP IN GAINING A COMPETITIVE EDGE

	Responses		Percent of Cases
	N	Percent	
Product differentiation and characteristics	72	24.0%	72.0%
Lower costs	58	19.3%	58.0%
Technology	37	12.3%	37.0%
Market position	52	17.3%	52.0%
Marketing approach	33	11.0%	33.0%
N/A	48	16.0%	48.0%
Total	300	100.0%	300.0%

Table 5: Simple MR frequencies of factors helping in gaining a competitive edge

PROBLEMS WITH ACCESS TO FINANCING

	Responses	
	N	Percent
Limited access to subsidized financing	47	15.7%
Bank credit is expensive	60	20.0%
Excessive collateral	61	20.3%
Own resources and savings are already invested	20	6.7%
N/A	112	37.3%
Total	300	100.0%

Table 6: Simple MR frequencies of problems related to the access to financing

EXPECTATIONS FROM BUSINESS SUPPORT INSTITUTIONS

	Responses	
	N	Percent
Technical advice	40	13.3%
Financial advice	18	6.0%
information	47	15.7%
Market studies	76	25.3%
Partner search	21	7.0%
Training	33	11.0%
N/A	65	21.7%
Total	300	100.0%

Table 7: Simple MR frequencies of expectations from business support institutions

EXPECTATIONS FROM INDUSTRIAL POLICY

	Responses	
	N	Percent
Protective through customs duties	42	14.0%
Protective through import licenses and quantitative restrictions	15	5.0%
Favoring free trade	5	1.7%
Favoring free movement of labor	14	4.7%
Favoring joint ventures	4	1.3%
Based on investment incentives	25	8.3%
Based on export incentives	54	18.0%
Seeking to reduce local costs	68	22.7%
Targeting the upgrading and modernization of infrastructure	22	7.3%
Defending intellectual property rights	9	3.0%
Encouraging research and development	20	6.7%
N/A	22	7.3%
Total	300	100.0%

Table 8: Simple MR frequencies of expectations from industrial policy

IMPACT OF TRADE AGREEMENTS FREQUENCIES

	Responses	
	N	Percent
The free trade agreement with Arab countries is favorable	35	11.7%
The Free trade agreement with Arab countries is detrimental	50	16.7%
The Euro Med agreement has a detrimental impact	12	4.0%
The Euro Med agreement has a favorable impact	36	12.0%
Accession to the WTO is expected to have a detrimental impact	24	8.0%
Accession to the WTO is expected to have a favorable impact	29	9.7%
Bilateral agreements have a detrimental impact	20	6.7%
Bilateral agreements have a favorable impact	17	5.7%
N/A	77	25.6%
Total	300	100.0%

Table 9: Simple MR frequencies of the impact of trade agreements

IMPACT OF EXCHANGE RATES FLUCTUATIONS FREQUENCIES

	Responses	
	N	Percent
More competitive pricing of products on the local market	30	10.0%
Better competitive position on export markets	34	11.3%
Better competitive position on EU markets	28	9.3%
Worsened competitive position due to higher-priced raw materials	71	23.7%
N/A	137	45.7%
	300	100.0%

Table 10: Simple MR frequencies of the impact of exchange rates fluctuations

BANK CREDIT AS A SOURCE OF FINANCING

	Responses	
	N	Percent
Finance working capital	55	18.3%
Finance expansion	87	29.0%
Finance new projects	75	25.0%
N/A	83	27.6%
Total	300	100.0%

Table 11: Simple MR frequencies of the use of bank credit as a source of financing

PROSPECTS FOR LOCAL EXPANSION

	Responses	
	N	Percent
Expansion of capacity	88	29.3%
Subcontracting	18	6.0%
Acquisition	28	9.3%
Partnerships	24	8.0%
N/A	142	47.4%
Total	300	100.0%

Table 12: Simple MR frequencies of the prospects for local expansion

PROSPECTS FOR INTERNATIONAL EXPANSION FREQUENCIES

	Responses	
	N	Percent
Franchise	20	6.7%
Integration in a global network	36	12.0%
Joint venture	33	11.0%
Outsourcing	24	8.0%
De-location	31	10.3%
N/A	156	52.0%
Total	300	100.0%

Table 13: Simple MR frequencies of the prospects for international expansion

The following crosstabs pertain only to the intersection of variables with the highest frequencies. Refer to section C of the report for an explanation as to how crosstabs should be interpreted.

			PRODUCTIVITY								
			Labor	Energy	Infra-structure	Raw Materials	Inefficient	Corrupt Administration	Suboptimal Production	Technology	N/A	Total
Export	Norms	Count	3	0	3	2	0	0	1	2	2	13
		% of Total	1.00%	0.00%	1.00%	0.70%	0.00%	0.00%	0.30%	0.70%	0.7%	4.30%
	Administrative	Count	2	9	4	3	4	1	0	0	2	25
		% of Total	0.70%	3.00%	1.30%	1.00%	1.30%	0.30%	0.00%	0.00%	0.70%	8.30%
	Price	Count	13	33	3	18	5	2	2	2	3	81
		% of Total	4.30%	11.00%	1.00%	6.00%	1.70%	0.70%	0.70%	0.70%	1.0%	27.00%
	Quality	Count	3	4	4	3	0	0	1	1	0	16
		% of Total	1.00%	1.30%	1.30%	1.00%	0.00%	0.00%	0.30%	0.30%	0.00%	5.30%
	Origin	Count	3	2	0	2	0	1	0	0	0	8
		% of Total	1.00%	0.70%	0.00%	0.70%	0.00%	0.30%	0.00%	0.00%	0.00%	2.70%
	Barriers	Count	2	1	0	3	1	1	0	1	0	9
		% of Total	0.70%	0.30%	0.00%	1.00%	0.30%	0.30%	0.00%	0.30%	0.00%	3.00%
	Protectionism	Count	10	13	5	9	2	1	4	1	2	47
		% of Total	3.30%	4.30%	1.70%	3.00%	0.70%	0.30%	1.30%	0.30%	0.7%	15.70%
	Information	Count	1	1	0	3	0	1	0	1	1	8
		% of Total	0.30%	0.30%	0.00%	1.00%	0.00%	0.30%	0.00%	0.30%	0.30%	2.70%
	Export Promotion	Count	9	9	5	9	3	1	2	3	1	42
		% of Total	3.00%	3.00%	1.70%	3.00%	1.00%	0.30%	0.70%	1.00%	0.30%	14.00%
	N/A	Count	7	6	4	8	4	2	2	1	17	51
		% of Total	2.30%	2%	1.30%	2.70%	1.30%	0.70%	0.70%	0.30%	5.7%	17.00%
Total		Count	53	78	28	60	19	10	12	12	28	300
		% of Total	17.70%	26.00%	9.30%	20.00%	6.30%	3.30%	4.00%	4.00%	9.3%	100.00%

Table 1: Crosstab frequencies of factors affecting the access to export markets and the factors affecting productivity[16]

16   (Percentages and totals are based on responses).

Productivity			Capacity	Subcontracting	Acquisition	Partnerships	N/A	Total
	Labor	Count	21	2	4	3	23	53
		% of Total	7.00%	0.70%	1.30%	1.00%	7.7%	17.70%
	Energy	Count	33	6	9	6	24	78
		% of Total	11.00%	2.00%	3.00%	2.00%	8.0%	26.00%
	Infrastructure	Count	3	0	4	4	17	28
		% of Total	1.00%	0.00%	1.30%	1.30%	5.70%	9.30%
	Raw Materials	Count	21	7	3	4	25	60
		% of Total	7.00%	2.30%	1.00%	1.30%	8.3%	20.00%
	Inefficient Administration	Count	2	2	2	0	13	19
		% of Total	0.70%	0.70%	0.70%	0.00%	4.30%	6.30%
	Corrupt Administration	Count	0	0	1	1	8	10
		% of Total	0.00%	0.00%	0.30%	0.30%	2.70%	3.30%
	Suboptimal Production	Count	1	1	1	2	7	12
		% of Total	0.30%	0.30%	0.30%	0.70%	2.30%	4.00%
	Technology	Count	3	0	2	2	5	12
		% of Total	1.00%	0.00%	0.70%	0.70%	1.70%	4.00%
	N/A	Count	4	0	2	2	20	28
		% of Total	1.30%	0.00%	0.70%	0.70%	6.70%	9.30%
Total		Count	88	18	28	24	142	300
		% of Total	29.30%	6.00%	9.30%	8.00%	47.3%	100.00%

Header spanning all data columns: **PROSPECTS FOR LOCAL EXPANSION**

Table 2: Crosstab frequencies of factors affecting productivity and the prospects for local expansion

EXPORT/CURRENCY RATES CROSSTABULATION

			CURRENCY RATES					
			Competitive on Local Market	Competitive on Export Markets	Competitive on EU Markets	Higher-Priced Raw Materials	N/A	Total
Export	Norms	Count	3	0	1	5	4	13
		% of Total	1.0%	.0%	.3%	1.7%	1.3%	4.3%
	Administrative	Count	3	4	3	4	11	25
		% of Total	1.0%	1.3%	1.0%	1.3%	3.7%	8.3%
	Price	Count	10	10	10	33	18	81
		% of Total	3.3%	3.3%	3.3%	11.0%	6.0%	27.0%
	Quality	Count	6	3	2	1	4	16
		% of Total	2.0%	1.0%	.7%	.3%	1.3%	5.3%
	Origin	Count	0	1	0	2	5	8
		% of Total	.0%	.3%	.0%	.7%	1.7%	2.7%
	Barriers	Count	0	4	0	1	4	9
		% of Total	.0%	1.3%	.0%	.3%	1.3%	3.0%
	Protectionism	Count	4	6	4	11	22	47
		% of Total	1.3%	2.0%	1.3%	3.7%	7.3%	15.7%
	Information	Count	2	1	0	1	4	8
		% of Total	.7%	.3%	.0%	.3%	1.3%	2.7%
	Export Promotion	Count	0	2	8	10	22	42
		% of Total	.0%	.7%	2.7%	3.3%	7.3%	14.0%
	N/A	Count	2	3	0	3	43	51
		% of Total	.7%	1.0%	.0%	1.0%	14.3%	17.0%
Total		Count	30	34	28	71	137	300
		% of Total	10.0%	11.3%	9.3%	23.7%	45.7%	100.0%

Table 3: Crosstab frequencies of factors affecting the access to export markets
and the impact of currency rates fluctuations

LOCAL MARKET/COMPETITIVE EDGE CROSSTABULATION

			COMPETITIVE EDGE						
			Product Differentiation	Cost	Technology	Market Position	Marketing	N/A	Total
Local Market	Image	Count	7	4	1	5	4	1	22
		% of Total	2.3%	1.3%	.3%	1.7%	1.3%	.03%	7.3%
	Competition	Count	29	20	5	10	5	2	71
		% of Total	9.7%	6.7%	1.7%	3.3%	1.7%	.07%	23.7%
	Purchasing Power	Count	7	9	5	12	5	4	42
		% of Total	2.3%	3.0%	1.7%	4.0%	1.7%	.13%	14.0%
	Distribution	Count	3	1	1	0	1	0	6
		% of Total	1.0%	.3%	.3%	.0%	.3%	.00%	2.0%
	Information	Count	1	3	5	3	1	0	13
		% of Total	.3%	1.0%	1.7%	1.0%	.3%	.00%	4.3%
	Illegal Imports	Count	14	13	8	6	6	6	53
		% of Total	4.7%	4.3%	2.7%	2.0%	2.0%	.20%	17.7%
	N/A	Count	11	8	12	16	11	35	93
		% of Total	3.7%	2.7%	4.0%	5.3%	3.7%	11.7%	31.0%
Total		Count	72	58	37	52	33	48	300
		% of Total	24.0%	19.3%	12.3%	17.3%	11.0%	1.60%	100.0%

Table 4: Crosstab frequencies of the difficulties of selling to the local market and the factors conducive to gaining a competitive edge

PRODUCTIVITY/COMPETITIVE EDGE CROSSTABULATION

			COMPETITIVE EDGE						
			Product Differentiation	Cost	Technology	Market Position	Marketing	N/A	Total
Productivity	Labor	Count	15	9	8	6	4	11	53
		% of Total	5.0%	3.0%	2.7%	2.0%	1.3%	3.7%	17.7%
	Energy	Count	28	23	5	11	6	4	78
		% of Total	9.3%	7.7%	1.7%	3.7%	2.0%	1.3%	26.0%
	Infrastructure	Count	4	7	3	8	4	2	28
		% of Total	1.3%	2.3%	1.0%	2.7%	1.3%	.7%	9.3%
	Raw Materials	Count	12	11	10	13	7	7	60
		% of Total	4.0%	3.7%	3.3%	4.3%	2.3%	2.3%	20.0%
	Inefficient Administration	Count	2	2	2	2	7	4	19
		% of Total	.7%	.7%	.7%	.7%	2.3%	1.3%	6.3%
	Corrupt Administration	Count	2	1	1	2	1	3	10
		% of Total	.7%	.3%	.3%	.7%	.3%	1.0%	3.3%
	Suboptimal Production	Count	3	2	1	3	2	1	12
		% of Total	1.0%	.7%	.3%	1.0%	.7%	.3%	4.0%
	Technology	Count	3	2	2	3	1	1	12
		% of Total	1.0%	.7%	.7%	1.0%	.3%	.3%	4.0%
	N/A	Count	3	1	5	4	1	11	28
		% of Total	1.0%	.3%	1.7%	1.3%	.3%	3.7%	9.3%
Total		Count	72	58	37	52	33	48	300
		% of Total	24.0%	19.3%	12.3%	17.3%	11.0%	16.0%	100.0%

Table 5: Crosstab frequencies of factors affecting productivity and factors
conducive to gaining a competitive edge

PRODUCTIVITY/LOCAL MARKET CROSSTABULATION

			\<LOCAL MARKET\>							
			Image	Competition	Purchasing Power	Distribution	Information	Illegal Imports	N/A	Total
Productivity	Labor	Count	5	12	6	0	1	12	17	53
		% of Total	1.7%	4.0%	2.0%	.0%	.3%	4.0%	5.7%	17.7%
	Energy	Count	7	29	15	4	1	9	13	78
		% of Total	2.3%	9.7%	5.0%	1.3%	.3%	3.0%	4.3%	26.0%
	Infrastructure	Count	1	4	3	1	2	10	7	28
		% of Total	.3%	1.3%	1.0%	.3%	.7%	3.3%	2.3%	9.3%
	Raw Materials	Count	5	14	11	1	3	9	17	60
		% of Total	1.7%	4.7%	3.7%	.3%	1.0%	3.0%	5.7%	20.0%
	inefficient administration	Count	0	6	2	0	2	2	7	19
		% of Total	.0%	2.0%	.7%	.0%	.7%	.7%	2.3%	6.3%
	Corrupt Administration	Count	0	1	0	0	0	4	5	10
		% of Total	.0%	.3%	.0%	.0%	.0%	1.3%	1.7%	3.3%
	Suboptimal Production	Count	1	1	2	0	1	1	6	12
		% of Total	.3%	.3%	.7%	.0%	.3%	.3%	2.0%	4.0%
	Technology	Count	1	2	0	0	2	2	5	12
		% of Total	.3%	.7%	.0%	.0%	.7%	.7%	1.7%	4.0%
	N/A	Count	2	2	3	0	1	4	16	28
		% of Total	.7%	.7%	1.0%	.0%	.3%	1.3%	5.3%	9.3%
Total		Count	22	71	42	6	13	53	93	300
		% of Total	7.3%	23.7%	14.0%	2.0%	4.3%	17.7%	31.0%	100.0%

Table 6: Crosstab frequencies of factors affecting productivity and the difficulties in selling to the local market

POLICY/EXPORT CROSSTABULATION

Policy			Norms	Administrative	Price	Quality	Origin	Barriers	Protectionism	Information	Export Promotion	N/A	Total
	customs	Count	2	4	15	6	1	1	6	0	6	1	42
		% of Total	.7%	1.3%	5.0%	2.0%	.3%	.3%	2.0%	.0%	2.0%	.3%	14.0%
	restrictions	Count	1	2	6	0	1	1	1	1	1	1	15
		% of Total	.3%	.7%	2.0%	.0%	.3%	.3%	.3%	.3%	.3%	.3%	5.0%
	free trade	Count	0	1	2	0	0	0	1	0	1	0	5
		% of Total	.0%	.3%	.7%	.0%	.0%	.0%	.3%	.0%	.3%	.0%	1.7%
	labor movement	Count	1	1	3	0	2	0	3	0	3	1	14
		% of Total	.3%	.3%	1.0%	.0%	.7%	.0%	1.0%	.0%	1.0%	.3%	4.7%
	joint ventures	Count	0	0	1	1	0	0	1	0	1	0	4
		% of Total	.0%	.0%	.3%	.3%	.0%	.0%	.3%	.0%	.3%	.0%	1.3%
	investment incentives	Count	2	2	3	1	1	1	4	1	4	6	25
		% of Total	.7%	.7%	1.0%	.3%	.3%	.3%	1.3%	.3%	1.3%	2.0%	8.3%
	export incentives	Count	1	7	12	1	1	2	10	4	8	8	54
		% of Total	.3%	2.3%	4.0%	.3%	.3%	.7%	3.3%	1.3%	2.7%	2.7%	18.0%
	local costs	Count	3	2	27	2	1	1	14	2	7	9	68
		% of Total	1.0%	.7%	9.0%	.7%	.3%	.3%	4.7%	.7%	2.3%	3.0%	22.7%
	Infrastructure	Count	1	3	6	1	0	0	4	0	2	5	22
		% of Total	.3%	1.0%	2.0%	.3%	.0%	.0%	1.3%	.0%	.7%	1.7%	7.3%
	IPR	Count	1	0	1	0	1	1	0	0	2	3	9
		% of Total	.3%	.0%	.3%	.0%	.3%	.3%	.0%	.0%	.7%	1.0%	3.0%
	R&D	Count	1	3	3	3	0	2	0	0	5	3	20
		% of Total	.3%	1.0%	1.0%	1.0%	.0%	.7%	.0%	.0%	1.7%	1.0%	6.7%
	N/A	Count	0	0	2	1	0	0	3	0	2	14	22
		% of Total	.0%	.0%	.7%	.3%	.0%	.0%	1.0%	.0%	.7%	4.7%	7.3%
Total		Count	13	25	81	16	8	9	47	8	42	51	300
		% of Total	4.3%	8.3%	27.0%	5.3%	2.7%	3.0%	15.7%	2.7%	14.0%	17.0%	100.0%

Table 7: Crosstab frequencies of expectations from industrial policy and factors affecting the access to export market

APPENDIX G
BIVARIATE ANALYSIS

While examining inter-variable lines of causality may be within the exclusive domain of the economic and sectoral analysis, bivariate analysis helps detect strong correlation between variables. Strong correlation, however, may not necessarily imply causality.

Bivariate correlation analysis applied to the survey's frequency maps shows that a significant[17] correlation exists between ten variable pairs out of a total of 78[18]. These are:
1.   Labor problems and factors affecting productivity
2.   Labor problems and factors affecting local sales
3.   Labor problems and expectations from business support institutions
4.   Labor problems and expectations from industrial policy
5.   Access to financing and factors affecting access to export markets
6.   Access to financing and expectations from business support institutions
7.   Access to financing and bank credit as a source of financing
8.   Expectations from industrial policy and factors affecting productivity
9.   Expectations from industrial policy and impact of trade agreements
10.   Factor affecting local sales and impact of trade agreements

Significant correlation in this context implies that response frequencies for one variable co-vary with response frequencies for the other correlated variable. This does not necessarily mean that a causal link of any direction joins the two correlated variables.

The present survey report does not venture to provide an economic explanation as to why the variable pairs are significantly correlated. Suffice it to say that testing correlations is a second-stage processing exercise that would take data interpretation a step away from the presentation of basic results.

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17   Correlation is deemed significant at the 0.01 level of the Pearson 1-tailed test.
18   The variables referred to in this context are the survey's 13 dependent variables mentioned in section I - B.

		Factors affecting productivity	Factors affecting access to export markets	Labor problems	Factor affecting local sales	Competitive edge	Access to financing	Business support institutions	Industrial policy	Impact of trade agreements	Bank credit as a source of financing
Factors affecting productivity	Pearson Correlation	1	-.166*	.271**	.044	.085	-.117	-.012	.253**	.004	-.099
	Sig. (1-tailed)		.050	.003	.331	.201	.123	.454	.006	.485	.164
	Sum of Squares and Cross-products	936.910	-189.130	345.050	82.980	57.760	-263.830	-19.610	248.610	7.600	-114.950
	Covariance	9.464	-1.910	3.485	.838	.583	-2.665	-.198	2.511	.077	-1.161
	N	100	100	100	100	100	100	100	100	100	100
Factors affecting access to export markets	Pearson Correlation	-.166*	1	.182*	.217*	-.048	.408**	.082	.074	.055	-.014
	Sig. (1-tailed)	.050		.035	.015	.319	.000	.210	.232	.293	.444
	Sum of Squares and Cross-products	-189.130	1390.590	281.850	495.860	-39.680	1119.690	166.230	88.770	131.200	-20.150
	Covariance	-1.910	14.046	2.847	5.009	-.401	11.310	1.679	.897	1.325	-.204
	N	100	100	100	100	100	100	100	100	100	100
Labor problems	Pearson Correlation	.271**	.182*	1	.367**	.066	.230*	.360**	.319**	.224*	.147
	Sig. (1-tailed)	.003	.035		.000	.259	.011	.000	.001	.012	.072
	Sum of Squares and Cross-products	345.050	281.850	1730.750	934.900	60.800	705.350	818.450	426.550	595.000	232.750
	Covariance	3.485	2.847	17.482	9.443	.614	7.125	8.267	4.309	6.010	2.351
	N	100	100	100	100	100	100	100	100	100	100
Factor affecting local sales	Pearson Correlation	.044	.217*	.367**	1	-.027	.208*	.122	.166*	.382**	.062
	Sig. (1-tailed)	.331	.015	.000		.395	.019	.113	.050	.000	.270
	Sum of Squares and Cross-products	82.980	495.860	934.900	3758.440	-36.720	940.260	409.420	326.580	1492.800	144.900
	Covariance	.838	5.009	9.443	37.964	-.371	9.498	4.136	3.299	15.079	1.464
	N	100	100	100	100	100	100	100	100	100	100
Access to financing	Pearson Correlation	-.117	.408**	.230*	.208*	-.096	1	.250**	-.068	.079	.323**
	Sig. (1-tailed)	.123	.000	.011	.019	.172		.006	.251	.219	.001
	Sum of Squares and Cross-products	-263.830	1119.690	705.350	940.260	-156.880	5417.790	1006.930	-160.930	368.200	903.350
	Covariance	-2.665	11.310	7.125	9.498	-1.585	54.725	10.171	-1.626	3.719	9.125
	N	100	100	100	100	100	100	100	100	100	100

		Factors affecting productivity	Factors affecting access to export markets	Labor problems	Factor affecting local sales	Competitive edge	Access to financing	Business support institutions	Industrial policy	Impact of trade agreements	Bank credit as a source of financing
Business support institutions	Pearson Correlation	-.012	.082	.360**	.122	.085	.250**	1	.040	.060	.097
	Sig. (1-tailed)	.454	.210	.000	.113	.202	.006		.348	.276	.168
	Sum of Squares and Cross-products	-19.610	166.230	818.450	409.420	103.040	1006.930	2987.310	69.690	209.400	202.450
	Covariance	-.198	1.679	8.267	4.136	1.041	10.171	30.175	.704	2.115	2.045
	N	100	100	100	100	100	100	100	100	100	100
Industrial policy	Pearson Correlation	.253**	.074	.319**	.166*	.010	-.068	.040	1	.265**	-.082
	Sig. (1-tailed)	.006	.232	.001	.050	.462	.251	.348		.004	.208
	Sum of Squares and Cross-products	248.610	88.770	426.550	326.580	6.960	-160.930	69.690	1033.310	542.600	-100.450
	Covariance	2.511	.897	4.309	3.299	.070	-1.626	.704	10.437	5.481	-1.015
	N	100	100	100	100	100	100	100	100	100	100
Impact of trade agreements	Pearson Correlation	.004	.055	.224*	.382**	-.005	.079	.060	.265**	1	.068
	Sig. (1-tailed)	.485	.293	.012	.000	.482	.219	.276	.004		.252
	Sum of Squares and Cross-products	7.600	131.200	595.000	1492.800	-6.400	368.200	209.400	542.600	4060.000	164.000
	Covariance	.077	1.325	6.010	15.079	-.065	3.719	2.115	5.481	41.010	1.657
	N	100	100	100	100	100	100	100	100	100	100
Bank credit as a source of financing	Pearson Correlation	-.099	-.014	.147	.062	-.057	.323**	.097	-.082	.068	1
	Sig. (1-tailed)	.164	.444	.072	.270	.287	.001	.168	.208	.252	
	Sum of Squares and Cross-products	-114.950	-20.150	232.750	144.900	-48.200	903.350	202.450	-100.450	164.000	1446.750
	Covariance	-1.161	-.204	2.351	1.464	-.487	9.125	2.045	-1.015	1.657	14.614
	N	100	100	100	100	100	100	100	100	100	100

*. Correlation is significant at the 0.05 level (1-tailed).
**. Correlation is significant at the 0.01 level (1-tailed).

Table 1: Bivariate analysis; covariance matrix of frequencies between the 13 variables

APPENDIX H
EXPLANATORY NOTE 1: MULTIPLE RESPONSE SETS

What are Multiple Response Sets in the context of the present survey?
MR sets represent the number and the percentage of responses that ranked each factor among the three most important factors affecting each of the 13 dependent variables.

EXPLANATORY NOTE 2: CASES VERSUS RESPONSES

What is the difference between cases and responses? And why does the number of responses in Multiple Response Sets add up to 300?
Cases refer to the actual respondents and therefore add up to a hundred; whereas responses are the lumped sets of the three different choices ranked by respondents. Each respondent has three ranks to assign for variables in each MR set: first choice, second choice and third choice; hence responses add up to 300.

As final results, are case frequencies more meaningful than response frequencies, or vice versa?
When quoted as percentages, case frequencies are meaningful in that they convey the number of respondents that expressed a given opinion. In multiple response sets, the number of responses is obviously larger than the number of respondents; therefore if quoted as percentages response frequencies would appear to be underrated.

To avoid ambiguity, the wording used in the interpretation of results expresses case frequencies in percentages and response frequencies in absolute numbers. Expressed in that manner, both case and response frequencies are equally important in relaying results.

An example of the wording used: " five percent of respondents chose variable A as ranking first in importance, whereas 22 responses placed variable A among the first three most important variables."

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