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# AN EXAMINATION OF EU DIRECTIVE 98/76/EC IN REGARDS TO THE IRISH ROAD HAULAGE INDUSTRY.

**[Postgraduate Track]**
**[Working Paper]**

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Abstract:

The Irish economy experienced a tremendous increase in economic growth during the 1990's and early 21st Century (Celtic Tiger). This economic boom was export driven and the Irish Road Haulage Industry transported the majority of products produced at some stage, if not a number of stages in the logistics tunnel. In recent times there has been somewhat of a growing unease in the road haulage industry in relation to increasing costs, squeezing already tight profit margins. A report commissioned by the Department of Public Enterprise illustrated that 48% of hauliers identified themselves as needing training in the area of cost calculation (Indecon, 1999). As a result, many hauliers are unable to accurately analyse costs; this can lead to incorrect management decisions in relation to pricing and rate setting, with the potential to significantly erode profitability levels.

The Indecon report stated, "*this is an area where there is very little information in the industry*"(Indecon, 1999: 95). This research attempts to analyse current costing practices/models in the Irish Road Haulage Industry in order to improve understanding of the current capabilities of Hire and Reward operators in relation to financial management.

The first step of the research methodology was an intensive search for pertinent literature, from which a limited amount of information was obtained. Primary research was undertaken through the use of a structured postal questionnaire. Empirical evidence of the current financial management capabilities of Irish road haulage hire and reward operators obtained from the research instrument is contrasted and compared with the 1998 EU Directive 98/76/EC stating the current minimum competency levels in order to gain a certificate of professional competency (OJEC, 1998).

Introduction:

As Ireland is a peripheral economy on the edge of Europe that is also export driven (Indecon, 1999), the cost of transportation tends to be double that of its European neighbours when transport costs are considered in percentage terms of the buyers product's price (Forfas, 1985). The movement of goods is of critical importance to an economy, especially one, which is dependent on international trade such as Ireland. Its prominence is probably one of the lowest in the area of logistics and therefore its importance is underestimated in many cases. To speculate this is probably due to the movement of raw materials or finished products being taken for granted (Short, 1985).

However the use of JIT (Just-In-Time) has forced many organisations to look more in-depth at there transport suppliers. Considering Irelands distribution of manufacturing and other organisations throughout the country. It would prove extremely difficult to operate without road haulage and in a sense many firms are dependent upon its effectiveness and efficiency. This view is supported by Short (1985: 14) *"Good transport facilities can aid the development of areas of industries and can increase the scope of greater flexibility with regard to locational decisions and distribution systems. In a sense transport can almost be regarded as a factor of production, for without the ability to move materials into and out of factories production is impossible or pointless."*

Ireland's history with regards to road haulage is similar to that of our European counterparts (McKinnon, 1998), its past is based on regulation in order to develop stabilization within the industry. In the 1960's opinions in relation to regulation began to change, primarily due to the relaxation of the regulatory framework in Great Britain (Short, 1985). The first liberalization act in Ireland was introduced in 1971 principally reducing restrictions on commodities, the second in 1978, which relaxed the restrictions on the size of the haulage fleet. A report by the Transport Consultative Commission lead the Minister of Communications to liberalize the road haulage industry in 1984 subject to some qualitative controls.

Problem:

Since deregulation, it is the responsibility of the hire and reward road haulier to set their haulage rates. The Indecon report (1999) identified 48% of hauliers as having difficulty with cost calculation. Council Directive 98/76/EC set out to harmonise entry to the profession of road haulage throughout member states. This resulted in an increase in the Business and Financial Management Syllabus in the Certificate of Professional Competency (CPC) course (in the Irish Republic) (OJEC, 1998). However this is only a small section of the troubles within the Irish Road Haulage Industry. Many others lie alongside this such as the slowdown in Irish economic growth, high inflation (which now looks to be starting to subside), underdeveloped infrastructure and a fragmented industry, with 80% of hire and reward haulage businesses having three vehicles or less.

Objective:

The aim of this paper is to analyse the financial management capabilities of the Irish Road Haulage Industry – Hire and Reward sector. With a particular emphasis on there costing and pricing ability and if this affects the business's operating profits. Also to examine whether the amends made in the directive 98/76/EC had any outcome or is the knowledge gained in the CPC actually put into practice.

Research Approach

The first step of the research was an intensive search of pertinent literature to develop an understanding of previous research on hauliers.

A limited amount of qualitative research was carried out. Purposive sampling was used to establish the required respondents. The first technique used was that of a research conversation approach with a key informant in an informal setting. This allowed the respondent to talk about the main issues in their own terms and gave a good overall flavour in relation to the culture and behaviour within the industry.

The second technique used was semi-structured interviews of eight haulage operators. Questions were drawn up prior to the interview on macro industry subjects. These interviews took place on individual basis, in order to maintain the interview momentum the respondent's answers were recorded for later analysis.

The qualitative research was principally used to develop the primary research instrument, a structured questionnaire. Hence a"*Dominant-less dominant design"* (Creswell, 1994: 177) with the emphasis on the quantitative approach. The questionnaire was issued to a cross section of Irish (republic) road haulage hire and reward operators. A sample size of 800 hauliers out of an approximate population of 4,500 licensed carriers was chosen. The response rate was approx. 20 per-cent. The preliminary results of which are discussed later.

Literature Review:

In a highly competitive market environment accurate calculation and control of costs is of the utmost importance. Without an accurate costing model a company could suffer considerable financial damage even to the extent of forcing withdrawal from the market.

In order to accurately set prices, the cost of performing the contract needs to be accurately calculated. Over costing can lead to unnecessarily high prices, loosing the company contracts and hence market share. Under costing can lead to unintentional erosion of profit margins. The reduction in costs has a higher profit leverage than increasing sales, see Table 1 below for example:

**Table 1 Profit Leverage Provided by Cost Reduction (Lambert et al, 1998)**
*If net profit for every Euro of sales is 3.0 percent then…*

| A Saving of: (Euro) | Is equivalent to a sales increase of: (Euro) |
|---|---|
| 0.03 | 1.00 |
| 3.00 | 100.00 |
| 30.00 | 1,000.00 |
| 300.00 | 10,000.00 |
| 3,000.00 | 100,000.00 |
| 30,000.00 | 1,000,000.00 |

It can be seen that a one Euro saving on costs has a much greater impact on profitability than a one Euro increase in sales. The opposite is also true. In the illustration above, a thirty Euro increase in costs have the same effects on profitability as a fall in sales to the value of one thousand Euro. In Profit Leverage, costs have a higher degree of impact than sales on a company's profitability. This leverage effect also applies to pricing. The difference between the price that the business obtains for its services and what the buyer was willing to pay has a direct impact on the bottom line (Urbany, 2001).

In order to control costs you first need to accurately obtain and record data and understand how they behave. It is transparent from the Table 1 that controlling costs is significantly important not just for setting prices, but also for maintaining/improving profitability.

Before an analysis can be carried out the recording of costs needs to take place. Lowe (1989) described this well *"What makes a good costing system difficult is the vigilance needed to ensure that all necessary figures are collected and recorded and the need to ensure that all calculation methods are consistent"*. Lowe also goes on to say that decisions are often made on experience and not accurate and up-to-date information.

Rushton et al (2000) also referred to an effective costing system as having a number of uses:

- To rapidly identify that something is wrong.
- Identify with a certain level of ease where the issue lies.
- To be able to take some form of action to bring the issue to a close.

Fish (1983) also argues that there are a number of reasons why it is essential for a firm to accurately calculate its costs.

- To know the rate at which the firm can earn a profit.
- To quickly reflect increased costs in their charges and demonstrate to their customers the validity of the increase.
- To analyse costs, monitor performance and update budgets.
- For forecasting purposes, such as cash flow and operating profit.
- To judge how long a business can survive on without covering its full costs.
- For comparison of forecast with actual results.

It is also important that companies do not fall into the misconception that they can use average industry costs. The company's costs could be above average and therefore eroding their profit margins when using industry averages for making pricing decisions, they will also be unable to monitor cost and pinpoint particular problems. In order to gain this information and obtain the ability of controlling costs they first need to record and measure them (Indecon, 1999).

Duke (1994) perceives pricing as having very little guidelines for approaching problems. He also states "*Pricing has developed as a seat-of-the-pants activity*". Research into pricing has not addressed the need for simple and quick assistance to aid pricing decisions.

Duke also suggests that educational mater examines separate issues of the pricing decision, but does not address the interrelationships of these issues. He believes that companies need to address a pricing strategy matrix that gives consideration to consumer characteristics, the competitive situation and company objectives. Given the outcome of the decision that the company makes in relation to the preceding three areas, a tactical plan can be developed.

One major disadvantages of a linear concept is that it does not bring together all the issues in a comprehensive framework, which would co-ordinate the prices for the firm. With regards

to pricing being learned inside the organisation, excellent guidelines and rules are sometimes developed, but on occasion these can be erroneous.

Tellis (cited by Duke, 1994) states that a standard mark-up on costs might penalise some products, as the product maybe able to bear a higher price in the market. Average costs were also referred to as potentially misleading, if demand changes when based on a fixed and variable cost system.

"*Few companies are sophisticated enough to have reliable and up-to-date information to calculate sophisticated pricing information such as marginal cost or contribution margin, and some companies do not account adequately for basics such as break-even analysis*" Kotler cited by Duke (1994: 20).

Strategy-based approach for pricing should be used and those firms should develop objectives and the external environment influences these objectives. This type of framework works on the basis that individual consumer characteristics are defined with a combination of strategic situations. This will lead to a matrix framework (Duke, 1994).

*Objectives*, the approach behind the company impacts on prices. Such as market share maximisation, profit maximisation, return on capital employed, defend home or niche market and so on.

*Policies*, courses of action in order to achieve the company objective.

Policies and objectives are used to develop prices. They maybe developed by considering a number of factors or principally one. These are demand-base, cost-base, competitor based methods of calculation.

*Discounts* are also considered appropriate for a number of reasons such as season, special sales, quantity and so on.

Adjustments are sometimes made due to *geographical* location.

The University of New Brunswick (UNB), Canada identifies that the rates charged are usually on a unit basis and in certain circumstances charges are applied for loading, unloading, terminal fees and so on (UNB(B), 1999). Lowe (1989) also identifies this type of model. Research at the University of New Brunswick identifies a large deviation in rate practice from cost base with profit mark-up to *"charging what the traffic will bear"* (UNB(A), 1999).

Bourdon (1992) refers to pricing strategies in competitive markets in particular the British Industrial Distributors (BID) industry. Bourdon believes the BID sector are mainly privately or owner-manager businesses. The market is referred to as monopolistic or local oligopolistic. Price is inter-dependent with other suppliers and price competition is intense within the market. This leaves the market in a difficult position where profitability is concerned. There is lower revenue and profit for firms within this industry and competitors quickly match price cuts.

In Bourdon's research of one hundred and twenty three paper distributors and eighty-one engineering distributors a number of important facts were established. The most frequent influence over setting prices cited by distributors was competitor's prices. In importance it was ranked third. First was product/service attributes followed by pricing objectives. Even though competitor's prices have a strong influence the issues of product/service attributes and objectives are ranked as more important. This represents firms as believing a more proactive policy should be dominant, but those firms are forced to consider competitors activity.

Key Findings:

The respondents were principally owner-managers (92%), which is in line with expectation considering the fragmented structure of the industry. Respondent's data was analysed through the use of Statistical Package for the Social Sciences (SPSS). As can be seen from Table 2 there is a higher number of respondents who obtained their CPC prior to 1998 (approx. 70% before and 30 after or 2.4:1). This needs to be taken into consideration when viewing the data in the following tables.

**Table 2. Frequencies of Respondents Who Obtained Their CPC Before And After the Implementation of the EU Directive.**

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | *Before* | 74 | 48.7 | *70.5* | 70.5 |
| | *After* | 31 | 20.4 | *29.5* | 100.0 |
| | Total | 105 | 69.1 | 100.0 | |
| Missing | System | 47 | 30.9 | | |
| Total | | 152 | 100.0 | | |

**Table 3. Cross Tabulation of Haulier Who Analyse Costs and Calculate Rates Before and After Directive.**

| | | **EU Directive** *Before* | | | **EU Directive** *After* | | |
|---|---|---|---|---|---|---|---|
| | | Count | Row % | Col % | Count | Row % | Col % |
| *Analyse Costs* | Yes | 63 | 70.0% | 86.3% | 27 | 30.0% | 87.1% |
| | No | 10 | 90.9% | 13.7% | 1 | 9.1% | 3.2% |
| | Don't Know | | | | 3 | 100.0% | 9.7% |
| *Rates calculated* | Yes | 57 | 67.1% | 80.3% | 28 | 32.9% | 90.3% |
| | No | 12 | 80.0% | 16.9% | 3 | 20.0% | 9.7% |
| | Don't Know | 2 | 100.0% | 2.8% | | | |

From Table 3. it can be seen that there is no significant difference between those hauliers who obtained their CPC prior to that of the EU Directive in comparison to those who obtained it after 1998 in regards to whether they analyse their costs and calculate rates.

**Table 4. Cross Tabulation of Before and After Directive on Haualiers Costing Ability.**

| | | | *Before* | *After* | |
|---|---|---|---|---|---|
| **Costing ability** | *High* | Count | 9 | | 9 |
| | | % within Costing ability | 100.0% | | 100.0% |
| | | % within EU Directive | 12.2% | | 8.6% |
| | *Low* | Count | 65 | 31 | 96 |
| | | % within Costing ability | 67.7% | 32.3% | 100.0% |
| | | % within EU Directive | 87.8% | 100.0% | 91.4% |
| **Total** | | Count | 74 | 31 | 105 |

**Table 5. Cross Tabulation of Before and After Directive on Hauliers Pricing Ability.**

| | | | *Before* | *After* | |
|---|---|---|---|---|---|
| **Pricing Ability** | *High* | Count | 17 | 5 | 22 |
| | | % within Pricing Ability | 77.3% | 22.7% | 100.0% |
| | | % within EU Directive | 23.0% | 16.1% | 21.0% |
| | | % of Total | 16.2% | 4.8% | 21.0% |
| | *Low* | Count | 57 | 26 | 83 |
| | | % within Pricing Ability | 68.7% | 31.3% | 100.0% |
| | | % within EU Directive | 77.0% | 83.9% | 79.0% |
| | | % of Total | 54.3% | 24.8% | 79.0% |
| Total | | Count | 74 | 31 | 105 |
| | | % within Pricing Ability | 70.5% | 29.5% | 100.0% |
| | | % within EU Directive | 100.0% | 100.0% | 100.0% |
| | | % of Total | 70.5% | 29.5% | 100.0% |

An analysis was carried out on the respondent as to whether they had a high or low costing and pricing ability. The following criteria were used in the analysis based on the literature review and qualitative research.

Costing Variable:
Respondent's answers were classified into high and low costing procedures based on data obtained from the costing section of the primary research instrument.
High:

- Record costs in detail on paper or software.
- Analyse costs in detail on paper or software.
- Take the following costs into account, wages, fuel, maintenance, tyres, insurance, overheads, and vehicle lease/HP/Loan. These were chosen due to the fact they are the highest percentages of total costs.
- Analyse costs on a regular basis.
- Costs are broken down based on a suitable unit basis.

Low:

- Any other combination.

Pricing Variable:
Respondent's answers were classified into high and low pricing procedures based on data obtained from pricing section of the primary research instrument.
High:

- Pricing should be set per individual vehicle or on a suitable unit basis.
- Full-cost plus mark-up should be one of the top two ranked methods used for standard journeys.
- In relation to back loading price methods, ideally full cost plus mark-up or marginal cost plus mark-up.

Low:

- Any other combination.

Again looking at the cross tabulation there appears to be little difference between the two groups.

**Table 6. Key Influencers on Haulage Rate Setting**

| *Influencer* | *Ranking Before* | *Ranking After* |
|---|---|---|
| Full cost per unit | 1 (1.94) | 3 (2.67) |
| Consignors requirements | 2 (2.47) | 4 (3.00) |
| Contribution to fixed costs | 3 (2.84) | 5 (3.25) |
| Pricing strategy | 4 (3.21) | 1 (2.33) |
| Competitors prices | 5 (3.35) | 2 (2.38) |
| Bargaining power | 6 (4.03) | 6 (4.00) |

**Table 7. Key Methods used for Haulage Rate Setting**

| *Rate Calculation Method* | *Ranking Before* | *Ranking After* |
|---|---|---|
| Full cost plus mark-up | 1 (2.00) | 1 (2.56) |
| High as customers will pay | 2 (2.72) | 2 (2.73) |
| Consignor stipulates | 3 (2.76) | 4 (3.07) |
| Competitors prices | 4 (3.00) | 3 (2.75) |
| Follow market leader | 5 (4.03) | 6 (4.42) |
| Contribution over direct costs | 6 (4.07) | 5 (4.08) |

**Table 8. Key Methods used for Back-loading Rates**

| *Calculation Method* | *Ranking Before* | *Ranking After* |
|---|---|---|
| High as customers will pay | 1 (2.52) | 1 (2.40) |
| Full cost plus mark-up | 2 (2.71) | 4 (3.10) |
| Marginal cost plus mark-up | 3 (2.88) | 5 (3.44) |
| Competitors prices | 4 (2.96) | 3 (2.91) |
| Consignor stipulates | 5 (3.19) | 2 (2.73) |
| Follow market leader | 6 (4.45) | 6 (4.00) |

For tables 6, 7 and 8 respondents were asked to evaluate using one to six (one being the most important, six being least), what are the principal influences and most common methods used when calculating haulage rates. In Table 6 there appears to be a slight difference with a greater emphasis on strategy and market conditions rather than costs of performing the service. Table 7 with regards to actual methods used to calculate rates clearly indicates that haulier's priority is to ensure that they cover all their costs.

Ranked second is that of obtaining prices as high as customers will pay. This indicates that hauliers are also giving consideration to obtain as much revenue as possible and are considering market forces. The responses of hauliers in the interview stage of the research suggests that this comes with experience, and compiles with Bourdon's thoughts on the BID research. Unfortunately many respondents appear not to be in a position to negotiate rates, with consignor stipulating prices ranked third. This response principally came from the construction and tipper section of the haulage industry. Which also tended to be the most fragmented.

The respondents were asked separately (to standard rate setting) with regards to methods used to calculate back-loading rates. The results of which are presented in Table 8. It can be seen that the difference between standard rate setting and back-loading is principally pricing as high as customers will pay, indicating an approach based on experience rather than rigorous costing and pricing evaluation. Again this is suggestive of competitive market conditions.

**Table 9. Mean Profit and Years Experience**

| *EU Directive* | | *Profit/Loss* | *Years experience in Road Haulage* |
|---|---|---|---|
| *Before* | Mean | 13.28 | 19.67 |
| | N | 51 | 69 |
| | Std. Deviation | 12.529 | 9.082 |
| *After* | Mean | 13.68 | 11.21 |
| | N | 18 | 31 |
| | Std. Deviation | 12.661 | 10.467 |
| *Total* | Mean | 13.38 | 17.05 |
| | N | 69 | 100 |
| | Std. Deviation | 12.471 | 10.262 |

Based on the tables above it can be seen that there is only slight differences before and after the changes made to the CPC. A number of t-tests were carried out which resulted in no significant differences in the means between the two groups. The only exception to this was that of years experience in the Road Haulage industry. However this can be explained by the changes in the CPC only occurring four to five years ago. So in light of this it is expected that those who reported having a CPC prior to 1998 would have more experience than the opposing group.

Conclusion:

Based on the responses to the questionnaire, the increased level of financial management in the CPC appears not to have an impact on current haulage practice. However to move away from the changes implemented in 1998 and evaluate the larger picture. We can see that overall there is still a poor level of financial management practices in the Irish Road Haulage Industry Hire and Reward sector. With only 9 % of respondents having a costing system classified as high (91% classifies as low) and 79% classified as low ability in terms of pricing procedures (21% classified as high).

It can be concluded from this research that the majority of hauliers do not appear to be putting into practice what they have learned in the Certificate of Professional Competency.

References:

Bourdon, E., (1992) "Pricing Strategies in Highly Competitive Markets", *Management Decision*, Vol. 30 No.4, pp. 57-64.

Creswell, J. W., (1994) *Research Design: qualitative and quantitative approaches*, London, Sage Publications.

Duke, C. R., (1994) "Matching Appropriate Pricing Policy With Market Objectives", *Journal of Product & Brand Management*, Vol.03 No. 2, pp. 15-27.

Fish, B., (1983) "Keeping Haulage on the Right Road", *Accountancy*, September 1983, p. 52-54.

Forfas Transport and Logistics Group, (1995) *World Class to Serve The World*, Dublin, Government Publication Office.

Indecon, Price Waterhouse Coopers, and NEA, (1999) *A Strategy for the successful Development of The Irish Road Haulage Industry*, Dublin, Government Publication Office.

Lambert, D., Stock, J. and Ellram, L., (1998) *Fundamentals of Logistics Management*, Singapore, McGraw Hill.

Lowe, D., (1989) *Goods Vehicle Costing and Pricing Handbook*, London, Kogan Page.

McKinnon, A., (1998) "The Abolition of Quantitative Controls on Road Freight Transport: the end of an era?", *Transport Logistics*, Vol. 1, No. 3, pp. 211-223.

Official Journal of the European Communities (OJEC), L277/17, 14.10.98, Council Directive 98/76/EC.

Rushton, A., Oxley, J. and Croucher, P., (2000) *The Handbook of Logistics and Distribution Management*, London, Kogan Page.

Short, J., (1985) *Aspects of Freight Transportation in Ireland*, ESRI Paper 124, Nov, Dublin.

University of New Brunswick (A), (1999) *Transport Costs* [WWW document], June 30. http://www.unb.ca/transpo/mynet/mty69.htm (3 Dec 2001)

University of New Brunswick (B), (1999) *Cost and Cost Models* [WWW document], Aug 3. http://www.unb.ca/transpo/mynet/mtw37.htm (3 Dec 2001)

Urbany, J., (2001) "Are Your Prices Too Low?", *Harvard Business Review*, Vol. 79, No. 9, pp. 26-27.