

# Choosing the distribution channel for meat products

## *Výběr distribuční cesty pro masné produkty*

M. ZÁBOJ

*Mendel University of Agriculture and Forestry Brno, Czech Republic*

**Abstract:** In the paper, the author deals with the problem of choosing the distribution channel and offers the use of selected methods which should contribute to the final distribution process decision for the firm pursuing production and sale of meat and smoked goods. It is direct qualitative estimate approach, weighted factor summing approach and distribution cost approach. The last two methods try to quantify the decision criteria. In case of the weighted factor summing approach, the weights are assigned to each of the decision factors and at the same time each channel alternative is rated and the overall weighted factor score is computed which is the basis of setting up the scale of distribution variants. Distribution cost analysis made for specific situation proves higher effectiveness with distribution through the own retail selling unit than with sale by intermediary (concretely by 350,533 CZK). However, a single numerical result cannot be used as the only evaluating indicator but it is necessary to consider the other factors which would increase the objectivity of the final decision.

**Key words:** calculation, criterion, cost, sale, retail unit, distribution, distribution channel, intermediary

**Abstrakt:** Autor se v práci zabývá problematikou výběru distribuční cesty a nabízí využití vybraných metod, které by měly přispět ke konečnému rozhodnutí o způsobu distribuce pro firmu zabývající se výrobou a prodejem masa a uzenářských výrobků. Jedná se o metodu přímého kvalitativního odhadu, součtu vážených faktorů a určení distribučních nákladů. Poslední dva přístupy se snaží i o kvantifikaci rozhodovacích kritérií. V případě součtu vážených faktorů jsou jednotlivým kritériím přiřazeny váhy a současně s jejich ohodnocením je určeno celkové skóre, na jehož základě lze sestavit pořadí jednotlivých variant distribuce. Analýza distribučních nákladů dokazuje vyšší efektivnost při distribuci prostřednictvím vlastní maloobchodní prodejny než při prodeji s využitím distribučního článku (konkrétně o 350 533 Kč). Samotný číselný údaj nelze však použít jako jediný hodnotící ukazatel, ale je třeba vzít v úvahu další faktory, jež by zvýšily objektivnost konečného rozhodnutí.

**Klíčová slova:** kalkulace, kritérium, náklady, prodej, prodejna, distribuce, distribuční cesta, prostředník

## INTRODUCTION

In theory, the channel manager should choose an optimal channel structure alternative. Such a structure would offer the desired level of effectiveness in performing the distribution tasks at the lowest possible cost. If the firm's goal is to maximise its long-term profits, an optimal channel structure would be completely consistent with that goal.

In reality, choosing an optimal channel structure, in the strictest sense of the term, is not possible. To do so would require the channel manager to have considered all possible alternative channel structures and to be able to calculate the exact payoffs associated with each alternative structure in terms of some criterion. The channel manager would then choose the one alternative offering the highest payoff.

Why is this not possible? First, management is not capable of knowing all the possible alternatives. The amount of information and time necessary to develop all

possible alternative channel structures for achieving a particular distribution objective would be prohibitive. Moreover, even if management were willing to spend this time and effort, it would have no way of knowing when it had actually specified all of the possible alternatives.

Secondly, even if it were possible to specify all possible channel structures, precise methods do not exist for calculating the exact payoffs associated with each of the alternative structures. The number of variables affecting the channel is high and these variables are continually changing. Any method claiming to offer a means for calculating exact payoffs for each of the alternative channel structures would have to offer its user the ability to identify all relevant variables and to tell precisely what effects each variable has on the structure. Moreover, the method would also have to be capable of predicting the level and direction of change in all of the variables. Such a method (some might prefer to call it a model) is not a very realistic possibility.

---

The paper has arisen within the solution the research project of FBE MUAUF Brno, MSM 431100007 "Forming of a structure of agriculture and food industry and trends in behaviour of entrepreneurial subjects within the process of Czech Republic integration into EU".

Aspinwall's approach places the main emphasis for choosing a channel structure on product variables (Aspinwall 1958). Aspinwall begins by arguing that all products may be described in terms of the following five characteristics:

1. *Replacement rate* – the rate at which a good is purchased and consumed by users in order to provide the satisfaction a consumer expects from the product.
2. *Gross margin* – the difference between the laid-in cost and the final realised sales price. This includes the sum of all gross margins as products move through the channel.
3. *Adjustment* – services applied to goods in order to meet the exact needs of the consumer.
4. *Time of consumption* – the measured time of consumption during which the product gives up the utility desired.
5. *Searching time* – a measure of average time and distance from the retail store.

Aspinwall continues by presenting a method for classifying all products based on the degree to which they possess each of these characteristics. He does so by using an ingenious analogy to the colour spectrum: any product could be represented by its "shade" on this spectrum, which uses only three colours. Products with high replacement rates but low values for the other four characteristics are "red goods". Those products having medium values on all five characteristics are "orange goods", while those with a low replacement rate but higher values for the other four characteristics are "yellow goods".

Aspinwall argues that the channel structure used in the distribution (as well as promotion) of products are closely related to their "colour", that is, the degree to which they possess each of the five characteristics.

Lambert offers another approach, which argues that the most important variables for choosing a channel structure are financial. He states: Examination of the process of choosing a trade channel leads to the conclusion that the choice is determined primarily by financial rather than what is generally thought of as marketing considerations. It is equally true whether the firm is contemplating shortening the channel, which requires more capital, or lengthening the channel, which will make funds formerly used in distribution available for other employment (Lambert 1966).

According to Lambert, choosing an appropriate channel structure is analogous to an investment decision. Basically, this decision involves comparing estimated earnings on capital resulting from alternative channel structures in light of the cost of capital to determine the most profitable channel. Further, the use of capital for distribution must be also compared to the alternative of using the funds in manufacturing operations. Unless the firm can earn more than the cost of capital and the return that can be earned on the use of its funds in manufacturing, it should shift performance of marketing functions to intermediaries.

Transaction cost analysis (TCA), based on the work of Williamson (1975), addresses the choice of marketing

channel structure only in the most general case situation of choosing between the manufacturer performing all of the distribution tasks itself through vertical integration versus using independent intermediaries to perform some or most of the distribution tasks. In the TCA approach, Williamson attempts to synthesise traditional economic analysis with behavioural concepts. The main focus of TCA is on the cost of conducting the transactions necessary for a firm to accomplish its distribution tasks. Transaction costs are essentially the costs associated with performing tasks such as gathering information, negotiating, monitoring performance. In order for transactions to take place, transaction specific assets are needed. These are the set of unique assets, both tangible and intangible, required to perform the distribution tasks. If independent channel members control most or all of the transaction specific assets, they will know they are virtually indispensable and will act accordingly. Consequently, they will demand terms that are skewed heavily toward their own self-interest, thereby increasing transaction costs for the manufacturer to uneconomic levels. The surest way to guard against this happening is for the manufacturer to keep the transaction specific assets in-house where it can exercise much more control over them through the intradepartmental bureaucratic structure. On the other hand, if the transaction specific asset situation is low (there are many alternative uses for them), then the manufacturer does not have to worry about allocating them to independent channel members. If these channel members' demands become too self-serving, the assets can be easily transferred to another less demanding group of channel members.

## MATERIALS AND METHODS

Approaches to choosing channel structure rely heavily on managerial judgement and heuristics, or rules of thumb. There are, however, variations in the degree of precision of judgmental-heuristics approaches. Some attempt to formalise the decision-making process to some degree, while others attempt to incorporate cost and revenue data (Rosenbloom 1995).

### Straight qualitative judgement approach

The qualitative approach is the crudest but, in practice, the most commonly used approach for choosing channel structures. Under this approach, the various alternative channel structures that have been generated are evaluated by management in terms of decision factors that are thought to be important. These may include such factors as short- and long-run cost and profit considerations, channel control issues, long-term growth potentials. Sometimes, however, these decision factors are not stated explicitly, and their relative importance is also not made clear. Nevertheless, an alternative is chosen which, in the opinion of management, best satisfies the various explicit or implicit decision factors.

## Weighted factor score approach

A more refined version of the straight qualitative approach to choosing among channel alternatives is the *weighted factor approach*. This approach forces management to structure and quantify its judgements in choosing a channel alternative (Kotler 1971). The approach consists of four basic steps:

1. The decision factors on which the channel choice will be based must be stated explicitly.
2. Weights are assigned to each of the decision factors in order to reflect their relative importance precisely in percentage terms.
3. Each channel alternative is rated on each of the decision factors on the scale of 1 to 10.
4. The overall weighted factor score (the total score) is computed for each channel alternative by multiplying the factor weight by the factor score.

## Distribution costing approach

Under this approach, estimates of costs and revenues for different channel alternatives are made, and the figures are compared to see how each alternative stacks up.

## RESULTS AND DISCUSSION

The firm pursuing production and sale of meat and smoked goods considers a distribution for new product – durable salami with a mustard taste. It can be chosen from four possible alternatives:

- I. Distribution through own retail selling units
- II. Distribution through trans-national retail chains (supermarkets, shopping centres)
- III. Distribution by using small independent retail units
- IV. Distribution through retail units net (retail co-operative)

When the straight qualitative judgement approach will be used for choosing the 'best' alternative, it is necessary to consider each of the distribution variants in connection with decision factors as follows:

1. The sale control
2. The distribution cost
3. The affect the final sale price
4. The number of potential consumers
5. The affect the cash-flow

After considering the four alternatives in terms of the decision factors, management decides for choosing distribution alternative, or their combination, that in its judgement is the best one.

In case of using of the weighted factor score is necessary assign the weights to each of the decision factors and we have to rate them as well. Then we can rank the distribution variants from the best one (the highest total score) to the worst one (the lowest total score) from the Tables 1–4 which indicate the total score for each channel alternatives.

From the results achieved is evident that the best one is alternative II (retail chains). In case of saturation of these customers demand it is possible to use an alternative I (own retail selling units) and/or alternative IV (retail co-operatives) which are not so different from alternative II. As the worst distribution variant is alternative III (small independent retail units) because it clearly has the lowest total score.

Under the distribution costing approach, calculations of costs and revenues for different channel alternatives are made, and then the figures are compared. The firm pursuing production and sale of meat and smoked goods decides from two possible distribution variants:

- A. The distribution through own retail selling unit
- B. The distribution through retail chains

Calculations of costs, revenues and rate of return are indicated in Tables 5 and 6 for the both variants, and the

Table 1. Weighted factor score approach for alternative I

Factor	Factor weight (A)	Factor score (B)										Rating (A × B)
		1	2	3	4	5	6	7	8	9	10	
1	25%									✓		225
2	20%								✓			160
3	10%									✓		90
4	30%		✓									60
5	15%				✓							60
Σ	100%											595

Source: Elaborated by author

Table 2: Weighted factor score approach for alternative II

Factor	Factor weight (A)	Factor score (B)										Rating (A × B)
		1	2	3	4	5	6	7	8	9	10	
1	25%				✓							100
2	20%						✓					120
3	10%			✓								30
4	30%									✓		270
5	15%							✓				105
Σ	100%											625

Source: Elaborated by author

Table 3: Weighted factor score approach for alternative III

Factor	Factor weight (A)	Factor score (B)										Rating (A × B)
		1	2	3	4	5	6	7	8	9	10	
1	25%						✓					150
2	20%				✓							80
3	10%							✓				70
4	30%				✓							120
5	15%					✓						75
Σ	100%											495

Source: Elaborated by author

firm pursuing production and sale of meat and smoked goods provided necessary data (Záboj 2001).

It is possible on base of the achieved results to deduce the recommendation that in the stated terms distribution is more effective in case of variant A – the distribution through own retail selling unit. Nevertheless, it would be very misleading to use only this conclusion for choosing optimal distribution channel structure. There is the set of other important factors which are affecting the final decision as follows:

- Territorial market size
- Capacity and development of demand
- Competition intensity
- Labour availability
- Local infrastructure

In that case, the firms making business in the market for a long time have the advantage because they are ca-

Table 5: Calculation of annual rate of return for variant A

Item	Figure (CZK)
1. Rent of spaces	240 000
2. Depreciation of assets <sup>1</sup>	411 667
3. Labour costs (the wages including insurance) <sup>2</sup>	631 800
4. Promotion	40 000
5. Losses in stocks	15 000
6. Other costs (transport, storage, energy, water)	80 000
7. Total distribution cost (1 + 2 + 3 + 4 + 5 + 6)	1 418 467
8. Revenues	3 900 000
9. Rate of return for variant A (8 – 7)	2 481 533

Source: The firm pursuing production and sale of meat and smoked goods, elaborated by author

<sup>1</sup> Záboj, M. The variants of distribution channel creating<sup>2</sup> 2 shop assistants (24 000 CZK per month) and 1 chief (15 000 CZK per month) including 35% of wages for medical and social treatment

Table 4: Weighted factor score approach for alternative IV

Factor	Factor weight (A)	Factor score (B)										Rating (A × B)
		1	2	3	4	5	6	7	8	9	10	
1	25%							✓				175
2	20%					✓						100
3	10%						✓					60
4	30%					✓						150
5	15%						✓					90
Σ	100%											575

Source: Elaborated by author

pable to compare the present and new markets. Generally, there is the interrelationship between conditions in the markets and difficulty of retail unit establishment: the markets will be closer in their nature and the adaptability of the retail format will be higher.

In the technical economic analysis, the financial analysis and project evaluations have central position for providing basic information necessary for decision making about acceptance or disapproval of project, respectively the information for considering of the advantage of more variant possibilities and for decision making about choosing of the variant which should be implemented. Evaluating and choosing of projects thus tend to two important decisions. Firstly, investment decision and secondly, financial decision. The investment decision has relation to the actual material content of the project and it identifies the concrete assets to which the firm will invest. If the managers made decision to realise

Table 6: Calculation of annual rate of return for variant B

Item	Figure (CZK)
1. Registering fee <sup>3</sup>	250 000
2. Logistics costs (transport, storage, manipulation)	200 000
3. Labour costs (the wages including insurance) <sup>4</sup>	324 000
4. Administrative cost	20 000
5. Total distribution cost (1 + 2 + 3 + 4)	794 000
6. Revenues <sup>5</sup>	2 925 000
7. Rate of return for variant B (6 – 5)	2 131 000

Source: The firm pursuing production and sale of meat and smoked goods, elaborated by author

<sup>3</sup> Registering supplier fee, in that case it is 10 000 CZK per each product (10 meat categories and 15 sorts of smoked goods)<sup>4</sup> 1 sale manager (20 000 CZK per month) including 35% of wages for medical and social treatment<sup>5</sup> The revenues are 25% lower than in variant A

a real project, then they have to select the size and structure of financial sources as well, e. i. to perform the financial decision. Financial and investment decisions are not mutually independent but they are closely connected.

The figuring is, of course, a highly simplified example. Regardless of how elaborate it is or of the degree of detail involved, however, the basic theme or tenor of all such approaches stress the managerial judgement and rules of thumb about what the costs and revenues of various channel structure alternatives are likely to be.

Regardless of which judgmental-heuristic approach is used, large doses of judgement and estimations are virtually unavoidable. For even with the weighted factor score or the distribution costing approaches, a large measure of managerial judgement is still needed to come up with the seemingly precise figures. This is not to say that these methods are totally subjective. On the contrary, in some cases the management's ability to make sharp judgements may be quite high and, if this coupled with

good empirical data on costs and revenues, highly satisfactory (though not optimal) channel choice decisions may be made using judgmental-heuristic approaches.

## REFERENCES

- Aspinwall L. (1958): *The Characteristics of Goods and Parallel Systems Theories*. Homewood: Irwin
- Kotler P. (1971): *Marketing Decision Making: A Model Building Approach*. New York: Holt, Rinehart & Winston
- Lambert E. W. (1966): *Financial Considerations in Choosing a Marketing Channel*. Homewood: Irwin
- Rosenbloom B. (1995): *Marketing Channels (A management view)*. Orlando: The Dryden Press
- Williamson O.E. (1975): *Markets and Hierarchies: Analysis and Antitrust Implications*. New York: Free Press
- Záboj M. (2001): *The variants of distribution channel creating – dissertation thesis*. Brno: FE MUAF Brno

Arrived on 23<sup>rd</sup> May 2002

---

### *Contact address:*

Ing. Marek Záboj, Ph.D., Mendelova zemědělská a lesnická univerzita v Brně, PEF, Ústav marketingu a obchodu,  
Zemědělská 5, 613 00 Brno, Česká republika  
tel.: +420 5 4513 6033, fax: +420 5 4513 2930, e-mail: marek@mendelu.cz

---