Abstract—This paper aims to develop a model that assists the international retailer in selecting the country that maximizes the degree of fit between the retailer’s goals and the country characteristics in his initial internationalization move. A two-stage multi criteria decision model is designed integrating the Analytic Hierarchy Process (AHP) and Goal Programming. Ethical, cultural, geographic and economic proximity are identified as the relevant constructs of the internationalization decision. The constructs are further structured into sub-factors within analytic hierarchy. The model helps the retailer to integrate, rank and weigh a number of hard and soft factors and prioritize the countries accordingly. The model has been implemented on a Turkish luxury goods retailer who was planning to internationalize. Actual entry of the specific retailer in the selected country is a support for the model. Implementation on a single retailer limits the generalizability of the results; however, the emphasis of the paper is on construct identification and model development. The paper enriches the existing literature by proposing a hybrid multi objective decision model which introduces new soft dimensions i.e. perceived distance, ethical proximity, humane orientation to the decision process and facilitates effective decision making.

Keywords—Analytic hierarchy process, culture, ethics, goal programming, retail foreign market selection.

I. INTRODUCTION

Cross-border activities have been a prominent issue in retailing business. In this process, country (foreign market) selection is a critical decision point. Foreign market selection (FMS) involves the process by which countries are evaluated based on a number of criteria and chosen to best match the related companies’ goals and preferences regarding the criteria. FMS is an inflexible, uncertain and risky decision including several quantitative and qualitative factors; therefore, a multidisciplinary tool integrating retailing and management science would be effective. As highlighted by Climaco [1] “...the modern rational decision is mono-rational and social reality is clearly pluri-rational.”

Retail country selection decision needs to incorporate both the hard factors such as demographics and soft constructs such as psychic distance and perceived ethicity. We posit that the proximity between the retailer and the host country on certain hard and soft dimensions -economic, geographic, cultural and ethical- stand out as facilitators or inhibitors in the selection of the country to expand.

The objective of the paper is to help retailers in their initial foreign market selection (IFMS) decision. To this purpose, we propose a normative market estimating model. We enrich the existing literature by proposing a hybrid multi objective decision model which introduces new soft dimensions i.e. perceived distance, ethical proximity, humane orientation to the decision process. The model assists the internationalizing retailer to select the best matching country that maximizes the degree of fit between the strategies of the retailer and the country characteristics in his initial internationalization move.

The paper proceeds with a compact review of the literature on retailer’s country selection decision. It is followed by a discussion of the methodology and the two-stage model. The next section presents an implementation of the model followed with a discussion of the results. The paper ends with a conclusion section.

II. FOREIGN MARKET SELECTION

Although there has been a vast amount of research on retail internationalization, market entry phase has been neglected in the literature [2]. There are some analyses of the explanatory criteria of market choice such as Gripsrud and Benito’s [3] regression-based model; however, none on selection models [4]. Vida [5] supports early theories of internationalization which consider country selection as a function of geographical or cultural distance. Myers and Alexander [6]; Evans et al. [7] also regard distance as a success factor in retailing. Several authors have pointed out the lack of a comprehensive approach for the internationalization of the retailing firms [8].

The two general theories that have developed on foreign market selection, haven’t either explicitly modeled the decision process as in Dunning’s [9] or have treated it only partially in studies that are based upon the behavioral theory of the firm [3]. This fact is also pointed out as a weakness by Andersen [10]. Although a number of methods have been proposed including integrated (hybrid models), majority of the literature on foreign market selection relies on one-stage models which see market selection in isolation from the rest of the strategic decision process [4], [11]. Hoffman [12] incorporated the four national cultural dimensions [13] using a goal programming model. Gripsrud and Benito [3] included economics and foreign market entry factors using a probability model, a spatial-interaction approach.

Despite the emerging recognition that the theoretical perspectives complement each other [14], few attempts have been made to bring their strong points together; possibly due...
to a perceived lack of modeling tools that could adequately integrate the main attributes of the various approaches [3].

Based on the above discussion, the decision support tool proposed in this study will aid the retailers in optimizing their selection of foreign markets. To this purpose, the analytical framework incorporates two management science tools: Analytic Hierarchy Process and Goal Programming. AHP is used to identify the hierarchy of the determinants of the decision to internationalize and the relative priority weights of each determinant for a specific retailer. Subsequently, GP is used to select the countrys that shows the highest economic, geographical, cultural and ethical proximity to the retailer.

A Substantiation of the Foreign Market Selection Indicators

At the initial stage (“caution stage” [15]) of internationalization, proximity is considered as a strongly related variable in IFMS decision. Retailers need to consider the overlap and divergence between the home and candidate countries when designing their FMS strategies. Companies commonly prefer close markets especially at their initial FMS decisions. Furthermore, studies such as Cavusgil [16] show that similarity between the home market and the foreign markets influence company performance positively [7]. In this study, proximity is introduced as the main construct for explaining the initial country selection decision of the internationalizing retailer. Proximity is considered in four dimensions as ethical, cultural, geographical and economic proximity. The authors foresee a meaningful relationship between the IFMS decision and these constructs. These factors and sub-factors are structured into an AHP model and the relative importance of the constructs is calculated systematically [17].

Ethical Proximity

There must be some degree of fit between the retailer organization’s ethical orientation and the country to be expanded [12]. Business ethics is an important component of the international retailer’s decision criteria not only because of its categorical significance but also because “enlightened self interest” [18] tempts the retailer in this direction. Business activities can not exist “unless the people involved in business and its surrounding community adheres to some minimum standards of ethics [19]. Since “the law in practice seldom provides incentive for optimal deterrence, this leaves room for firms and managers to consider their ethical obligations” [20]. Corruption and humane orientation are taken as main surrogates for the ethicality of the host country.

Corruption. Corruption is operationalized using Transparency International’s (TI) Global Corruption Barometer [21]. The Barometer explores how corruption affects ordinary people. Corruption is defined as “abuse of public office for private gain” [21] by means of bribery of public officials, kickbacks in public procurement, embezzlement of public funds. Vinod [22] predicts capital flight controls to be many, foreign direct investment to be low and cost of capital to be high in corrupt developing countries.

Humane orientation. This construct is one of the nine core cultural dimensions that are identified in the GLOBE study [23]. Organizations reflect the culture (practices and values) in the society in which they are embedded. Humane orientation is related to crucial concepts such as fairness and justice. “Societies that value humane orientation seek to reduce power distance and use rather assertive practices, possibly to fight against injustice [24]”. It may be defined as the degree to which an organization and society encourages and rewards individuals for being fair, altruistic, friendly, generous, caring, and kind to others. The findings point out that as the humane orientation practices of a society increase, it tends to have more collectivist, performance oriented, and nonassertive practices [24].

Cultural Proximity

Subjective factors like national cultural differences enter the FMS process of an internationalizing retailer [25], [26], [27]. Empirical research has shown that, on average, the greater the national cultural distance between two countries, the greater the differences between them in terms of routines and repertoires, legal systems, administrative practices and working styles [13], [28], [27]. To by-pass these difficulties, firms tend to prefer cultures closer to their own [29], [26].

Cultural proximity is operationalized using Hofstede’s four national culture dimensions [13], [30]. Hofstede’s dimensions are used due to their validity, reliability [27] and because index numbers are available for a large number of countries [31].

Uncertainty avoidance. Strong uncertainty avoidance cultures are “active, aggressive, emotional, security seeking, and intolerant” ([32], p.390). The dimension refers to how “uncertainty is organizationally resolved”, underscoring that “the elements making up the uncertainty avoidance dimension are organizational and managerial in character” ([33], p.423).

Power distance. This is the “extent to which less powerful individuals accept inequality in power and considers it as normal” ([32], p.390). Countries which are significantly distant along Hofstede’s [13] ‘uncertainty- avoidance’ and ‘power distance’ dimensions present specific differences in their decision making practices and in their power and control structures [34], [13], [35], [27].

Masculinity. In the masculine cultures, men are expected to be assertive, ambitious, competitive, striving for material success and lacking concern for others ([32], p.390). “Negotiations between two masculine cultures are more difficult than if at least one of the cultures is more feminine ” [36]. More feminine societies emphasize values such as relationship, modesty, caring for the weak, and the quality of life [37], [31].

Individualism. Individualist cultures are assumed to be concerned with their own interests, and interests of their immediate family. “An individualist society is tightly
A critical level of economic development is required when expanding to a new country. The country to expand is expected to have “certain pockets of customer demand to support sophisticated retail operations” ([40], p.158). The economic sub-factors considered in this paper are GDP/capita, Global Competitiveness and Global Retail Development. GDP/capita is a more direct and objective indicator; whereas the other sub-factors are composed of an array of dimensions.

**GDP/Capita.** Economic proximity can be measured by differences in levels of GDP [40]. McGoldrick and Blair [50] consider GDP as a relevant variable in foreign market entry. Godley and Fletcher [51] have shown that the main predictor of foreign entry into UK retailing over the last 150 years has been purchasing power.

**Global competitiveness.** This sub-factor is operationalized using the Global Competitiveness Index for 2006 developed by the World Economic Forum [52]. It aims ‘assessment of countries’ competitiveness, offering insights into the policies, institutions, and factors driving productivity and, thus, enabling sustained economic growth and long-term prosperity” [52]. The index includes a comprehensive dataset on a broad array of competitiveness indicators for a large number of industrialized and developing economies. It includes hard data from leading international sources and the perceptions of several thousand business leaders across the countries on topics related to national competitiveness.

**Global retail development.** This construct is operationalized using the Global Retail Development Index [53], which is composed of country risk, market attractiveness, market saturation and time pressure. Country risk reduces the likelihood in international market entry [29].

### III. METHODOLOGY

Increasing competition and diversity within the global environment requires retailers “to take into account not only the rational but also the subjective and the ethical poles of influence” [54] and utilize them in the most efficient way. The approach should also support the design of customized strategies for decision makers to enable the retailers differentiate themselves in the direction of their preferences. There is further evidence from literature that validates a systematic approach. Swoboda et al. [4] emphasizes that even though an opportunistic and unsystematic method of decision making is successful in some cases, it can also be dangerous. Douglas and Craig [55] believe that a systematic process is a fundamental success factor, especially at the initial stage of internationalization. Firms implementing a distinctive information and planning system are more successful in foreign countries [4]. These facts foster the involvement of a management science approach within the international retailing context.

**A. The Two-Stage Model**

In addressing the above issues, this paper’s analytic framework exploits two major management science tools which would promote the achievement of the ‘best’ foreign market entry decision. The two-stage multi criteria decision model (Fig. 1) includes the Analytic Hierarchy Process (AHP) that makes the analysis of subjective tools and development of strategy-specific solutions possible and Goal Programming (GP) which achieves the best compromising solution under...
the given constraints and multiple goals. The proposed decision support tool combines management science, international retailing theory and microcomputer technology.

**Fig. 1 Analytical framework for country selection decision**

B. Analytic Hierarchy Process (AHP)

AHP, a multi criteria decision making tool developed by Saaty [56], evaluates and weights a number of factors and sub-factors which effect the final decision. Factor weights are calculated systematically throughout the analytic hierarchy process itself which reduces bias and subjectivity significantly; whereas, other common methods such as factor rating have the drawback of subjective and a priori assignment of weights.

AHP transposes the set of factors and sub-factors to a multilevel hierarchy. The decision maker compares and evaluates the factors by constructing pair wise comparison matrices for each hierarchy level. Pair wise comparisons focus only on two factors which make the quantification of criteria easier and more precise. The decision maker answers the question ‘How important is factor A compared to factor B in reaching the final goal?’. The responses are evaluated using a scale of 1 (equally important) to 9 (extremely important) as suggested by Miller [57]. The comparisons are reciprocal. If factor A compared to factor B is rated 9 then B compared to A is rated 1/9 (extremely less important). After comparing all possible pairs, mathematical operations are applied to the comparison matrix to obtain the relative priorities (importance weights) for each factor [56]. The same procedure is repeated to evaluate the criteria at each level of the hierarchy.

AHP contributes to this study with the determination of the retailer’s priority weights for each goal. These weights will be used as objective function coefficients in the GP model. Thus, using AHP will make the goal priority weight determination process objective and systematic.

C. Goal Programming

Decision making situations such as foreign market entry involve multiple goals. These goals might be competing as well as conflicting. Given the limited availability of resources, some goals can be achieved only at the expense of other goals.

As Brans [58] emphasizes “We need compromise solutions not optimal ones”.

GP technique handles decision problems involving multiple goals and reaches the best compromise solution. A basic GP model can be formulated as follows, where X and Z are defined as the decision variables and the objective function respectively:

\[
\begin{align*}
\text{Determine } X = (x_1, x_2, \ldots, x_n) \\
\text{Min } Z &= f(d^*_i, d^-_i) = \sum_{i=1}^{n} P_i (d^*_i + d^-_i) \\
\text{Subject to } & \\
\sum_{j=1}^{n} a_{ij} x_j + d^*_i - d^-_i &= \alpha_i, \quad i = 1, \ldots, I \\
\sum_{j=1}^{n} x_j &\leq r_i, \quad j = 1, \ldots, n \\
x_j &\geq \text{mean value of variable } j
\end{align*}
\]

\(d^*_i, d^-_i\): under and over achievement amounts of target values for goal

\(P_i\): Priority weight (of the deviational variables) of the \(i^{th}\) goal

\(a_{ij}\): \(f^{th}\) technical coefficient value for the \(i^{th}\) goal

\(\alpha_i\): target value for the \(i^{th}\) goal

\(r_i\): upper limit of the \(i^{th}\) resource

The objective function (1) minimizes the sum of deviations \((d_i)\) from each goal \((G_i)\). Each goal is assigned a priority weight \((P_i)\) that shows its relative importance among other goals. Therefore, goals with higher \(P_i\) values are achieved before the others. The goals (2) reflect the objectives that are set by decision makers. Constraints (3) represent the availability of upper/lower limits of resources.

IV. IMPLEMENTATION: THE CASE OF A TURKISH RETAILER

The Two-Stage Model developed in the previous section is implemented on a Turkish retailer. The retailer has been trading high-end products, mainly accessories and confectionaries. The Company has been both in the domestic and the duty free markets for the last fifteen years. In 2007, the Company decided to internationalize in order to diversify and reach economies of scale.

Prior to utilizing the model, the managing director had come up with a number of prospective countries to internationalize, based on the Company’s experience in the sector. At this point, we introduced the retailer our two-stage model. The retailer agreed for us to implement the model as a decision support tool. As a first step, IFMS indicators discussed in Section 2 were structured in a hierarchy using AHP (Fig. 2).

For each level in the AHP hierarchy, the managing director was asked to complete the related pair wise comparison matrices. For the first level, he answered the question ‘How important is criterion A compared to B in selecting the best country to expand?’. The resulting high values for the ethical
proximity row (Table 1) imply that ethicality was considered as a crucial factor.

Fig. 2 AHP Model for country choice decision

TABLE I
FACTOR COMPARISONS OF THE RETAILER

<table>
<thead>
<tr>
<th>Factor</th>
<th>Economic Proximity</th>
<th>Geographical Proximity</th>
<th>Cultural Proximity</th>
<th>Ethical Proximity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Economic prox</td>
<td>1</td>
<td>3</td>
<td>1/4</td>
<td>1/5</td>
</tr>
<tr>
<td>Geographical prox</td>
<td>1/3</td>
<td>1</td>
<td>1/7</td>
<td>1/9</td>
</tr>
<tr>
<td>Cultural prox</td>
<td>4</td>
<td>7</td>
<td>1</td>
<td>1/2</td>
</tr>
<tr>
<td>Ethical prox</td>
<td>5</td>
<td>9</td>
<td>2</td>
<td>1</td>
</tr>
</tbody>
</table>

Subsequently, the retailer completed the matrices related to the sub-factors. The scores for the economic proximity sub-factors depict that they were weighed as approximately equal (Table 2); whereas, under geographical proximity (Table 3), a score of 5 meant that psychic distance was strongly more important than physical distance.

TABLE II
ECONOMIC PROXIMITY MATRIX

<table>
<thead>
<tr>
<th>A / B</th>
<th>GDP/Capita</th>
<th>Global Competitiveness</th>
<th>Global Retail Development</th>
</tr>
</thead>
<tbody>
<tr>
<td>GDP/Capita</td>
<td>1</td>
<td>1/2</td>
<td>1</td>
</tr>
<tr>
<td>Global Competitiveness</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Global Retail Development</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
</tbody>
</table>

TABLE III
GEOGRAPHICAL PROXIMITY MATRIX

<table>
<thead>
<tr>
<th>A / B</th>
<th>Physical Distance</th>
<th>Psychic Distance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical Distance</td>
<td>1</td>
<td>1/5</td>
</tr>
<tr>
<td>Psychic Distance</td>
<td>5</td>
<td>1</td>
</tr>
</tbody>
</table>

Among cultural proximity sub-factors, masculinity and power distance were evaluated as more important compared to uncertainty avoidance and individualism (Table 4). Finally, within ethical proximity (Table 5), a score of 7 meant that psychic orientation was deemed as very strongly important compared to humane orientation.

TABLE IV
CULTURAL PROXIMITY MATRIX

<table>
<thead>
<tr>
<th>A / B</th>
<th>Uncertainty Avoidance</th>
<th>Power Distance</th>
<th>Masculinity</th>
<th>Individualism</th>
</tr>
</thead>
<tbody>
<tr>
<td>Uncertainty Avoidance</td>
<td>1</td>
<td>3</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>Power Distance</td>
<td>1/3</td>
<td>1</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Masculinity</td>
<td>1/3</td>
<td>1</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>Individualism</td>
<td>1</td>
<td>1/3</td>
<td>1/5</td>
<td>1</td>
</tr>
</tbody>
</table>

TABLE V
ETHICAL PROXIMITY MATRIX

<table>
<thead>
<tr>
<th>A / B</th>
<th>Corruption</th>
<th>Humane Orientation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corruption</td>
<td>1</td>
<td>7</td>
</tr>
<tr>
<td>Humane Orientation</td>
<td>1/7</td>
<td>1</td>
</tr>
</tbody>
</table>

Relative priority factor weights were calculated by applying mathematical operations on each pair wise comparison matrix [51]. The calculated priority weights are given in Fig.3.

First numerical row in Fig. 3 indicates the weights of major factors with respect to country selection decision. Second row indicates the relative weights of sub-factors with respect to the related factor. Final numerical row is obtained from the previous two and shows the importance of sub-factor with respect to country selection decision.

The Turkish retailer’s results in Fig.3 indicate the importance of ethical proximity with 52.1% followed by cultural proximity with 32.8%; whereas economic and geographical proximity dimensions are inferior. Within ethical proximity, corruption and humane orientation are important with 87.5% and 12.5% respectively. This implies that their weights in the overall FMS decision are 45.6% (52.1% * 87.5%) and 6.5% (52.1% * 12.5%) respectively. Relative weights of other sub-factors are calculated similarly. The priority weights of the sub-factors are utilized as objective function coefficients of the goals in the GP model.

The GP model that is based on Hoffman [12] is developed to select the country having the minimum total deviation from the retailer’s goal targets.

Determine 2016( ... ... ), such that

\[ \text{Min} \sum_{i=1}^{n} P(d_i^e + d_i^i) \] (3)

Subject to
Objective function (3) minimizes the deviations from the targets of the retailer for each goal. The coefficients \(P_i\) in the objective function are the sub-factor priority weights calculated in the AHP process for the specific retailer. In the solution procedure, the goals with higher priority weights will be satisfied with higher priority.

The specific model for foreign market selection considers 60 countries for which related data is available for each goal. Section 2 explains in detail how data is acquired for each goal. The explicit model for foreign market selection is presented in Fig 4 below.

Determine \(X = (x_1, x_2, ..., x_{46})\) such that

\[
\text{Min } Z = 2.8d_1 + 4.4d_2 + 3.5d_3 + 1.2d_4 + 3.9d_5 + \\
11.8d_6 + 13.5d_7 + 5.4d_8 + 45.6d_9 + 6.5d_{10}
\]

The constraint \(C_1\) makes sure that only one country is selected at one model run. The only \(x_i\) with a value of 1 in the output designates the selection of the related country. To select more than one country, the model can be run that many times sequentially, each time excluding the selected country from the variable set. The GP process selects the country that meets the retailer’s targets at the highest extent.

The model with the Turkish retailer’s data was run utilizing microcomputer facilities and WINQSB [59] software. The output proposed Switzerland, Denmark and Ireland as the first three choices for this specific retailer. Table 7 summarizes how well these countries satisfied the retailer’s goals, i.e. the value +1771 depicts that the GDP of Switzerland exceeds the retailer’s target of 50,000 USD by 1771. Likewise, a value of zero for psychic distance implies that the retailer’s target is fully satisfied for that goal. The objective function row (Z) gives the sum of the weighted deviations that are undesirable for the retailer. Switzerland stands out as the country with minimum total undesirable deviations; therefore, it is selected as the initial country to enter.

As summarized above, the model justifies the decision maker the selection of the best country among a number of possible ones. The output presents the opportunity losses created by not making the best decision and ranks the countries according to the satisfaction level of retailer’s goals.

As summarized above, the model justifies the decision maker the selection of the best country among a number of possible ones. The output presents the opportunity losses created by not making the best decision and ranks the countries according to the satisfaction level of retailer’s goals.
Furthermore, GP provides the retailer with substantial sensitivity analysis information and with the help of computers it becomes quite practical to trace how sensitive the country choice decision is to changes in the IFMS decisions. After the retailer company’s completion of all the analysis steps, a longitudinal follow-up has revealed that the retailer actually expanded his business to Switzerland by the beginning of 2008 and has been increasing the business volume successfully.

V. CONCLUSION

Selecting the ‘right’ country to expand is a critical decision for an internationalizing retailer. There has not been much research in initial foreign market selection as compared to the other areas of international retailing such as entry modes, retail formats. Literature underscores a need for quantitative decision tools in country selection decision. The major contribution of this study is its conceptualization and empirical investigation of the impact of the ethical, cultural, geographic and economic proximity dimensions on the country selection decision of the internationalizing retailer.

The proposed two-stage decision model, which integrates the AHP and GP multi criteria decision tools, incorporates not only the ‘rational but also the subjective and ethical poles of influence’ [54]. The model translates the knowledge into suitable tailor-made action plans for the retailers. The unique solutions attained provide the highest fit with the retailer’s goals. The model makes it possible for a retailer to trace the impact of a change in the goals or relevant country characteristics.

REFERENCES
