# The Interrelationship between Culture and Capital Structure: Evidence from International Retailers

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**Abstract:** The present study investigates the influence of cultural factors in 2022 on the capital structure of global retailers. There are sixteen retailers from eight countries in the sample. In recent times, numerous academicians have taken an interest in examining the capital structure and business model of retailers, owing to their swift and consistent growth. However, the fact that the majority of research originates from the retailers' host country gives rise to debate regarding the applicability of the capital structure of said retailers to countries with distinct cultural environments. Consequently, academics have begun to investigate whether the capital structure of multinational retailers is impacted by the diversity of national cultures.

**Keywords:** Cultural factors; Capital structure; Global retailers; Business model; National cultures

## 1. Introduction

The theory of capital structure is one of the primary outcomes of research in modern financial theory. The capital structure of a business is determined by how it implements various financing strategies. Changes to the capital structure of a business are determined by the various financing methods and their various combinations.

This study employs ratios of total debt to total assets to determine the capital structure of companies. The capital structure of retailers has been the focus of extensive research, the majority of which has focused solely on the host country. However, debates have arisen regarding the capital structure of transnational corporations, which ought to be distinct from that of pure host companies, as a result of research. As a result, managers who are exposed to various cultures may opt for a business-specific, culture-focused approach, which could result in a capital structure that is distinctive due to cultural influences. In summary, this paper's primary objective is to demonstrate that culture affects the selection of capital structures.

The study employed a quantitative methodology; however, the inhomogeneity of retailer distribution density due to population factors introduces certain limitations to the findings, which are further compounded by the small sample size.

Nevertheless, in light of the exponential expansion of the retail industry, nations and corporations are

placing significant emphasis on their capital structure and cultural strategy. These two points are also the central theme and objective of this research.

## 2. Hofstede's cultural theory

Hofstede assessed 66 countries, generating cultural index scores and ordinal rankings for five constructs [1,2]. The concepts, in brief, are as follows: power distance (a tolerance for social class differences); individualism (the degree to which the well-being of the individual is prioritized over that of the group); materialism (achievement orientation, and competition); uncertainty avoidance (an intolerance for risk); and ultimately, long-term orientation (stability, thrift, respect for tradition, and future orientation) (the Confucian dynamic of long-term-short-term orientation)—are all concepts that he argues effectively differentiate people from various nations.

Hunt and Levie discovered that new business activities are influenced by national culture [3]. It is believed that transferring the business model of a company from its native nation to a foreign country is a risky endeavor. This pertains to the cultural variations that exist among target populations residing in distinct nations. Furthermore, an analogous discourse transpired regarding the notions of corporate and state culture.

Hofstede argued that while national culture is impracticable for companies to control, corporate culture is [4]. This is because national culture is nearly always defined by the influence of a company or industry over which it has no control. As a result, Hofstede asserted that when managing multinational corporations, national culture must be considered [4].

## 3. Culture and capital structure

Additionally, at the enterprise level, the influence of culture on capital structure decisions has been tested. By applying Schwartz's cultural dimension [5], Arosa *et al*. discovered that cultural factors influence corporate debt ratios [6]. They propose that "in particular, they find that firms in countries that value moderation, social order, security, and tradition (i.e., high conservatism) and firms in countries where success is highly valued (i.e., high mastery) tend to have low corporate debt ratios" [6]. There is additional evidence from other studies that corporate debt ratios are associated with culture.

There is evidence that culture influences the debt and equity policies of a company, even within the capital structure [6]. The researchers discovered that culture is related to the maturity structure of corporate debt; firms in countries with high uncertainty avoidance, collectivism, power distance, and masculinity rely on shorter-term debt for financing." Additionally, this theory aligns with the perspective of Hofstede [1], which delineates four distinct facets of national culture: uncertainty avoidance, individualism, power distance, and masculinity. The "prevailing relationship between the individual and the collectivity in a given society" is individualism.

Consequently, the impact of Hofstede's six cultural dimensions on the bank leverage ratio was investigated by Haq *et al*. [7]. The findings of the study indicate a positive correlation between individualism and the leverage ratio, whereas long-term positioning is negatively correlated with uncertainty avoidance and power distance. While the industry may vary, scholarly investigations into the impact of cultural dimensions on risk avoidance decision-making have primarily concentrated on the dimensions of individualism and uncertainty avoidance. Yao and Meng shared identical comprehension [8].

Power distance (PDI), individualism (IDV), uncertainty avoidance (UAI), masculinity (MAS), and long-term orientation are the six categories that comprise culture. The concepts of Indulgence (IND) and LTO are described in the literature. The selection of samples for this study will primarily focus on the following constructs: power distance, uncertainty avoidance, individualism, and masculinity. As per the Hofstede

paradigm implemented by Gleason *et al.* [9], this study also incorporated four cultural dimensions.

**Table 1.** Specifics of international retailers in 2022 along with the pertinent data

| Company | Country | Sales | ROA | TA | TD/TA | LTD | STD | TD |
|---|---|---|---|---|---|---|---|---|
| Carrefour | France | 82,893 | 3.85% | 56,551 | 0.77 | 12,036 | 25,907 | 43,365 |
| L'Oreal | France | 38,261 | 11.91% | 46,844 | 0.42 | 4,231 | 13,719 | 19,658 |
| Inditex | Spain | 27,716 | 15.59% | 28,945 | 0.46 | 4,263 | 8,029 | 13,186 |
| TESCO Plc. | UK | 65,762 | 3.00% | 46,132 | 0.73 | 12,713 | 17,735 | 33,902 |
| J Sainsbury Plc. | UK | 31,491 | 0.29% | 26,169 | 0.72 | 6,160 | 11,594 | 18,946 |
| Amazon.com Inc. | US | 513,983 | 4.39% | 462,675 | 0.68 | 85,236 | 155,393 | 316,632 |
| Walmart Inc. | US | 572,754 | 6.47% | 243,197 | 0.65 | 41,604 | 92,198 | 159,206 |
| JD.com Inc. | China | 1,046,236 | 4.10% | 595,250 | 0.54 | 30,233 | 266,561 | 321,127 |
| Alibaba Group Holding Ltd. | China | 853,062 | 7.23% | 1,695,553 | 0.36 | 132,503 | 383,784 | 613,360 |
| Yonghui Superstores Co. Ltd. | China | 90,091 | -3.41% | 62,143 | 0.88 | 2,070 | 29,067 | 54,486 |
| Beijing Jingkelong Co. Ltd. | China | 9,541 | -1.53% | 7,487 | 0.74 | 670 | 4,844 | 5,563 |
| Kesko | Finland | 11,809 | 6.87% | 7,474 | 0.63 | 1,838 | 2,797 | 4,732 |
| Ahold Delhaize | Netherland | 75,601 | 4.39% | 45,712 | 0.70 | 14,739 | 14,179 | 31,991 |
| Sligro Food Grp | Netherland | 2,483 | 1.19% | 1,421 | 0.66 | 318 | 610 | 942 |
| Axfood | Sweden | 73,474 | 8.16% | 28,618 | 0.76 | 7,388 | 12,743 | 21,717 |
| Hennes & Mauritz | Sweden | 223,553 | 3.31% | 182,048 | 0.72 | 58,925 | 68,335 | 131,291 |

Abbreviation: ROA, return of assets; TA, total assets; TD/TA, the ratio of total debt to total assets, present capital structure; LTD, long-term debt; STD, short-debt. Units of Sales, TA, LTD, and STD are million USD; TD/TA is time.

It is capable of perusing fundamental data pertaining to the return on assets. The local retail industry in China has a comparatively low return on assets due to the possibility that the epidemic will impact the sector.

A normal level of approximately 0.5 is maintained from the perspective of TD/TA; however, TD/TA will be affected by variations in the specific industry and products sold. The relative asset-liability ratios of the United Kingdom, the United States, the Netherlands, and Sweden are all greater, as shown in **Table 1**. When examining the cultural dimension, it becomes evident that it is associated with masculine characteristics.

In contrast, nations with masculine characteristics – namely the United Kingdom, the United States, the Netherlands, Sweden, and China – obtain greater levels of debt or long-term borrowing. This trend may potentially be associated with masculine qualities, such as a greater propensity for assuming accountability, in addition to addressing corporate challenges.

Furthermore, when examining the attributes of feeble uncertainty avoidance in the United States, China, and Britain, it becomes evident that pertinent corporations possess comparatively elevated short-term obligations and exhibit a greater propensity for venturesomeness and risk-taking. Conversely, individuals with significant uncertainty avoidance tend to exhibit a pronounced avoidance of taking risks.

The data utilized to examine the research question in this paper originates from eight countries: the United States, the United Kingdom, China, France, Spain, the Netherlands, Sweden, and Finland. Hofstede's works delineate the subsequent four cultural groups:

Group 1: Strong uncertainty avoidance, Feminine, Large power distance: France and Spain.

Group 2: Weak uncertainty avoidance, Masculine, Small power distance: US and UK.

Group 3: Weak uncertainty avoidance, Masculine, Large power distance: China.

Group 4: Strong uncertainty avoidance, Masculine, Large power distance: Finland, the Netherlands, and Sweden.

The study classified the international retailer sample into four groups in accordance with the Hofstede model in **Table 2**.

**Table 2.** Sample into groups

| Country | Power distance | Uncertainty avoidance | Individualism | Masculinity |
|---|---|---|---|---|
| Group 1 | | | | |
| France | 68 | 86 | 74 | 43 |
| Spain | 57 | 86 | 67 | 42 |
| Group 2 | | | | |
| US | 40 | 46 | 76 | 62 |
| UK | 35 | 35 | 60 | 66 |
| Group 3 | | | | |
| China | 80 | 30 | 43 | 66 |
| Group 4 | | | | |
| Finland | 33 | 59 | 75 | 26 |
| Netherland | 38 | 53 | 100 | 14 |
| Sweden | 31 | 29 | 87 | 5 |

As shown in **Table 2**, France and Spain, as the first group, have high Uncertainty Avoidance (both 86) and low Masculinity (France 43 and Spain 42), both of which are Power Distance (France 68 and Spain 57, respectively). The second group comprises the United Kingdom and the United States, where the relative Power Distance and Uncertainty Avoidance are both below 50. However, all of this group exhibits higher Masculinity values, with the United Kingdom having 66 and the United States having 62. China, placed third in the group, possesses a small Uncertainty Avoidance (30) and a formidable Power Distance (80). China, similar to the second group, possesses a larger Masculinity value of 66. The final group is comprised of the Netherlands, Finland, and Sweden. They are distinguished by their low values for Masculinity, Power Distance, and Uncertainty Avoidance, with the Swedish Masculinity value being a mere 5.

**Table 3.** Power distance analysis

| Power distance | | n | Minimum | Maximum | Mean | Standard deviation |
|---|---|---|---|---|---|---|
| High | TD/TA | 7 | 0.36 | 0.88 | 0.60 | 0.20 |
| | STD | 7 | 4,843.81 | 383,784.00 | 104,558.82 | 154,709.05 |
| | LTD | 7 | 670.59 | 132,503.00 | 26,572.40 | 47,808.84 |
| | TD | 7 | 5,562.53 | 613,360.00 | 152,963.51 | 231,296.61 |
| Low | TD/TA | 9 | 0.63 | 0.76 | 0.69 | 0.04 |
| | STD | 9 | 610.00 | 155,393.00 | 41,731.50 | 52,990.61 |
| | LTD | 9 | 318.00 | 85,236.00 | 25,435.61 | 29,833.61 |
| | TD | 9 | 942.00 | 316,632.00 | 79,928.76 | 105,100.47 |

**Table 3** presents data indicating that the average asset-liability ratio is comparatively lower when comparing higher and lower power distance indices. This could potentially be attributed to the leader's dictatorship and the substantial power distance, as the leader assumes greater risks, resulting in a comparatively lower asset-liability ratio. It is evident from the preceding categories that the United States and the United Kingdom have a relatively low power distance; consequently, their asset-liability ratios will be greater. As a result of power decentralization, their businesses exhibit a heightened propensity to undertake ventures that entail increased profitability. Consequently, organizations situated in nations with greater power distances will opt for a capital structure with a reduced TD/TA, aligning with the findings of Liu and colleagues [10].

**Table 4.** Uncertainty avoidance analysis

| Uncertainty avoidance | | $n$ | Minimum | Maximum | Mean | Standard deviation |
|---|---|---|---|---|---|---|
| High | TD/TA | 7 | 0.42 | 0.77 | 0.63 | 0.14 |
| | STD | 7 | 610.00 | 25,907.00 | 11,140.59 | 8,433.04 |
| | LTD | 7 | 318.00 | 14,739.00 | 6,401.80 | 5,312.84 |
| | TD | 7 | 942.00 | 43,365.00 | 19,370.07 | 14,903.86 |
| Low | TD/TA | 9 | 0.36 | 0.88 | 0.67 | 0.15 |
| | STD | 9 | 4,843.81 | 383,784.00 | 114,390.13 | 131,915.44 |
| | LTD | 9 | 670.59 | 132,503.00 | 41,123.85 | 44,613.71 |
| | TD | 9 | 5562.53 | 613,360.00 | 183,834.76 | 200,787.13 |

**Table 4** presents the financial indicators of the organization as calculated by the uncertainty avoidance index. The correlation between a low uncertainty avoidance index and increased corporate debt is evident. Countries with a low uncertainty avoidance index, including the United States, Britain, and China, have greater corporate debt, which, when combined with the cultural dimension classification mentioned previously, indicates that these nations are more risk-tolerant and risk-taking.

Based on the cultural dimension and the preceding analysis, the following hypothesis can be developed: Masculinity has no discernible effect on short-term debt.

In light of the limited sample size and additional variables that might influence short-term debt, a 10% level of significance is established. The statistical findings indicate that the *P*-value is below 0.10, suggesting that there is a discernible relationship between the degree of masculinity and the short-term borrowing practices of businesses. In conjunction with the preceding analysis, greater masculinity was correlated with greater short-term debt, potentially due to their increased propensity for calculated risk-taking. Consider data regarding the United States, the United Kingdom, and China's short-term debt.

The influence of national cultural differences on businesses has been the subject of numerous organizational theory studies (Black, 1999; Rashid et al., 2020). It is possible to conclude, based on previous research, that the capital structure will be influenced by the cultural dimension. In general, countries with high levels of masculinity and low levels of uncertainty avoidance—such as the United States, the United Kingdom, the Netherlands, and so forth—will have a higher TD/TA for businesses. The T-test further supports the conclusion that masculinity will influence short-term loans. In particular, those who have a greater masculinity index are more likely to obtain short-term financing and are more assured of their ability to manage comparable responsibilities to those in the United States and China. Yao and Meng reached the same conclusion in their research [8]. Despite industry distinctions, the TD/TA data for retailers in France and Spain is comparatively

low. This may be attributed to factors such as feminization, a strong avoidance of uncertainty, and a high power distance index.

# 4. Conclusion

The primary objective of this study is to investigate the correlation that exists between the capital structure of international retailers and national culture. The results indicate that retailers' behavioral thinking is influenced by national culture. It is evident that the capital structure of retailers is substantially influenced by national culture.

By examining the relationship between cultural dimensions and the capital structure (defined as the ratio of total debt to total assets) using financial data from international retailers and Hofstede's classification of national cultures, this research establishes conclusive evidence that the capital structure differs based on the cultural classification of the international retailer. These findings impact the incorporation of suitable control variables that might influence the capital structure.

Considering the numerous remaining limitations of this study, future improvements must be made, one of which is the insufficiently sized sample. Furthermore, it is important to acknowledge that the cultural aspect is merely one of several influential factors; therefore, its ability to depict a precise correlation between capital structure and national culture is limited. An additional factor to contemplate is the evolution of the notion of national culture in numerous nations as a result of demographic shifts. Numerous nations have shifted away from a singular cultural framework and have become more multicultural. Consequently, the formulation of the national culture of these countries becomes more arduous.

# Disclosure statement

The author declares no conflict of interest.

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