

# RESEARCH IN SCIENCE OF PERSONALIZATION AND CROSS-DISCIPLINARITY FOR COMPETITION IN MEETING PLANNERS DESTINASI JAKARTA, INDONESIA

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## Abstract

Business problems that are becoming increasingly complex require wise solutions so that the best alternatives can be found to overcome them. This paper develops a theoretical framework to elucidate how medium-sized enterprises (MMEs) can exploit the opportunities presented by the digital era to generate sustainable competitive advantages for scaling their businesses. To investigate this phenomenon, an explanatory case study methodology was employed. Primary data were collected through questionnaires administered to a proportionally stratified sample of 30 business owners. Explanatory case study approach is particularly appropriate for examining the complex interplay of factors influencing scaling in MMEs. Collected data were tabulated and subjected to multiple linear regression analysis to identify significant relationships. The analysis reveals the critical role of individualization, interdisciplinarity, cost leadership, and differentiation in formulating effective competitive strategies for scaling within the digital environment. This study offers a novel perspective by highlighting the importance of cost leadership, and individualization driven differentiation as essential competitive levers for MMEs seeking to scale in the digital age. It is important to acknowledge that the chosen theoretical perspective may not fully encompass all relevant dimensions, suggesting avenues for future research.

**Keywords:** Competitive Strategies, Individualization, Interdisciplinarity, Cost Leadership, Differentiation.

## INTRODUCTION

This paper investigates how the digital era empowers medium sized businesses to develop competitive advantages that facilitate scaling. While scaling has attracted significant interest from practitioners and policymakers, it remains relatively under explored in academic literature. Scaling involves rapid growth via replication, specifically by offering a similar, yet minimally adapted, market offering across different markets a strategy particularly relevant for resource constrained medium businesses. Our work delves into the critical question of how medium businesses can achieve and sustain a competitive advantage in the digital age, offering valuable insights for both academic discourse and practical application. We re-examine competitive strategies, particularly the often-discussed tension between cost leadership and differentiation. As Markides (2013) suggests, achieving both can be a powerful differentiator. Our research builds upon this by highlighting the digital era as a potent enabler of this dual strategy for medium businesses. Historically, medium businesses seeking competitive advantage have primarily relied on either cost leadership or differentiation strategies. However, the digital era allows medium businesses to pursue both strategies simultaneously (Achillas

& Raimondo, 2017). The enables them to achieve both a low-cost position and differentiation, thereby avoiding the pitfall of being stuck in the middle and potentially facilitating scaling despite limited resources and organizational size. Nevertheless, the specific mechanisms by which the digital era contributes to competitive advantage and facilitates scaling within medium businesses remain largely unexplored (Scuott et al, 2021). This paper aims to bridge that gap, proposing a novel framework designed to empower medium-sized businesses to not only survive but excel in the digital age. Our approach is rooted in the integration of strategic and innovation arrangement theories, specifically tailored to the unique context of medium enterprises. We identify and focus on three pivotal dimensions that define this new era: individualization, automation, and interdisciplinarity. For medium businesses, these dimensions are not merely buzzwords; they are the building blocks of a powerful, dual-pronged strategy. By effectively harnessing individualization, businesses can move beyond mass production to offer tailored products and services that resonate deeply with specific customer segments. This caters to the growing demand for personalized experiences, a key differentiator in a crowded marketplace.

Crucially, achieving this level of individualization does not necessitate a return to artisanal, low-volume production. This is where automation plays its transformative role. By intelligently integrating automated processes, medium businesses can deliver customized offerings efficiently and cost-effectively. This allows imagine a manufacturer that can offer a wide range of product variations, each precisely configured to individual customer specifications, all while maintaining manufacturing efficiency that rivals larger competitors. The third cornerstone of our framework is interdisciplinarity. In the digital age, problems are rarely confined to single disciplines. Solutions often lie at the intersection of technology, design, marketing, data analytics, and more. Our framework encourages medium businesses to foster an environment where knowledge from diverse fields can be freely shared and integrated. This cross-pollination of ideas fuels innovation, enabling businesses to identify new opportunities, solve complex challenges, and develop truly unique value propositions. The siren song of "digital transformation" echoes through boardrooms and policy debates alike. But for medium-sized businesses navigating the choppy waters of growth, understanding the *how* and *why* of digital adoption is far more critical than simply ticking boxes. This is precisely the territory explored in a recent explanatory case study, which delves into the substantial growth of a medium enterprise, offering crucial insights for both business leaders and those shaping our economic landscape.

The research, which validates a novel framework for understanding business scaling, unequivocally demonstrates that digital technologies are not merely an optional extra, but an essential engine for medium-sized businesses aiming to scale through adaptable market offerings. This isn't just about having a website or using social media; it's about strategically leveraging digital tools to craft and deliver products and services that can flex and evolve with market demands. For a medium business, the ability to adapt is paramount. They often operate in a sweet spot – large enough to have resources, yet agile enough to pivot quickly to seize opportunities. Digital technologies, from

sophisticated CRM systems to AI-powered customer service platforms, provide the very sinews that allow these businesses to stretch and reconfigure their offerings. Think of a company that can quickly introduce new product variations based on real-time customer feedback gathered through online channels, or a sales team empowered by personalized digital content to engage prospects more effectively. These are direct manifestations of digital tech enabling adaptable market offerings. Consider, for instance, the seemingly straightforward function of "digital sales support." This isn't a single piece of software. It encompasses a complex ecosystem: customer relationship management platforms, the marketing of automation tools, e-commerce integrations, data analytics dashboards, and potentially even chatbots or virtual assistants. Each of these components originates from different technological domains, requires diverse skill sets for implementation and maintenance, and interacts in intricate ways.

## LITERATURE REVIEW

### Theoretical Background

Human progress is fueled by the integration of existing knowledge, experience, and ideas with novel discoveries, leading to an expanding knowledge base that drives both technological and social transformations (Abels & Bieling, 2022). Humanity's relationship with technology is a story of relentless evolution. It began with the simplest of tools, extensions of our own hands, meticulously crafted for specific tasks. The flint axe, the bronze plow – these were the early chapters, dictating the pace of progress through sheer physical effort. From these foundations, we transitioned into the era of mechanical and electrical devices. Gears whirled, steam hissed, and electricity illuminated our world, unlocking new levels of efficiency and power. Think of the spinning jenny, the steam engine, or the early telegraph – each a monumental leap, transforming how we worked and communicated.

Figure 1, the concept of "Resource Based View Strategy" Treacy (1992) suggests that there are three market segments, each of which requires a different set of competencies, namely: *Operational Excellence* Operational Excellence is providing products or services obtained reliably, easily and at low prices for customers. It focuses on the business process to outperform others by providing affordable prices with consistent customer satisfaction quality. *Product leadership* Targeting the market very precisely and adjusting products and services according to the needs of certain customer groups. Another segment that expects innovations and leading features product or service. Product innovation to meet customer needs. Creativity and good market knowledge are needed to ensure that the products or services sold can be accepted by the market of customers and providing the best solutions to customers.

Resource Based View Strategy is a strategy for managing organizational resources covering all company assets, can the control of the strategy can produce business organization performance. Strategy implementation is a series of actions taken after going through the process of environmental observation and strategy formulation, these two steps are basic steps which are integrated steps. The next seismic shift, however, wasn't

just about more power or speed; it was about a fundamental redefinition of how information is processed and transmitted. This brings us to the era of analog and digital electronics. Analog systems, while sophisticated in their time, dealt with continuous signals – think of the subtle variations in voice on an old telephone line. But the true revolution arrived with digital electronics, the language of ones and zeros, a system capable of immense precision, adaptability, and miniaturization.



**Figure 1: Model of Resource Based View Strategy**

These advancements can trigger significant and potentially disruptive changes, resulting in substantial economic and societal realignments. Franadita & Adhie Husni (2023) for businesses, digital technologies offer considerable opportunities due to their widespread availability and accessibility. The businesses can particularly benefit from digital innovation, increasing their competitiveness, productivity, and overall performance. However, these businesses often base their digital technology adoption and implementation strategies on their preexisting overall strategy, often because managers are hesitant to embrace digital technologies as central to creating competitive strategies (Husnah et al, 2022). We contend that embracing the digital era is not merely a matter of simple acquisition but a profound transformation, akin to venturing into an entirely new and unfamiliar industry. Successful navigation of the digital era for medium sized businesses hinges on a comprehensive process of learning, comprehending, adopting, implementing, accepting, and creatively leveraging digital technologies (Reuber & Monaghan, 2021). Competitive strategies are essential to capturing and scaling the competitive advantages offered by the digital landscape. Traditionally, organizations selected specific technologies to execute pre-determined competitive strategies and achieve defined objectives (Salsa Nabila & Fadhilah, 2023).

However, empirical research increasingly suggests that combining these strategies often termed hybrid, mixed, integrated, or combined strategies can be a successful approach. Despite this, the factors enabling the successful implementation of such combined strategies in medium sized firms remain underexplored (Achillas & Raimondo, 2017). Prior research suggests that both external factors, such as market homogeneity and concentration and internal factors, like innovative organizational practices and embracing new eras. The conventional understanding of competitive strategies gaining advantage and scaling through either high volume, low cost, high value customization stems from the traditional division between mechanized production and manual craftsmanship, the digital era, however, offers the potential to bridge this divide (Indrasari, 2019). Despite the initial intention of the digital era to foster product and service differentiation, many digitally driven firms have surpassed traditional businesses in terms of cost efficiency and consumer value. The digital era, therefore, enables simultaneous pursuit cost leadership and differentiation (Khodakivska, 2023).

The critical question persists: how can medium-sized businesses leverage the digital era to create scalable competitive advantages? The answer, as illuminated by the work of Scuotto et al. (2021), lies in recognizing that the digital era, in its complexity, offers three specific dimensions that facilitate this crucial scaling. These dimensions are not merely technological add-ons, but foundational pillars upon which sustainable, growing competitive edges are built. While individualization and interdisciplinarity is frequently cited as the primary driver for era adoption in firms, digital era offers more than just; they simultaneously enable flexibility and complexity. Flexibility signifies the ease with which in its most extreme form, companies to modify their processes as needed, effectively individualizing production. Complexity, on the other hand, represents the integration of various disciplines in the development of market offerings and/or the design of production processes (Mauro & Pernazza, 2023).

### ***Individualization – Interdisciplinarity- Cost Leadership***

Unlike, craftsmanship emphasizes creating highly personalized, high-quality products, often with artistic merit, using specialized tools. Historically, craftsmanship relies on manual labor in smaller businesses, limiting its scalability and resulting in high marginal costs and productivity limitations. Consequently, highly customized processes typically lead to elevated production expenses (Noble, 2017). However, the digital era enables companies to offer individualized products and services while mitigating these traditional challenges. Digital solutions provide users with greater flexibility and enhanced benefits. In our theoretical framework, we represent individualization on the y axis, operationalizing it as the degree of personalization. Individualization, a common element of differentiation strategies (Koelling et al., 2010), empowers firms to distinguish their market offerings by granting customers greater freedom or additional advantages. While these individualized offerings may incur extra costs, the higher prices they command usually compensate for this, enabling firms to achieve above average returns even with lower production volumes. The digital age has expanded these possibilities, enabling not only the individualization of market offerings but also the individualization and interdisciplinarity of

the processes behind them. For instance, additive manufacturing allows for the automated, standardized production of custom medical products like in ear hearing aid shells or Invisalign® dental braces.

**Hypothesis (H1):** Individualization will positively influence the Interdisciplinarity to competitive strategies

Combining these three elements empowers medium sized businesses operating in the digital age to develop competitive strategies for expansion, leveraging both cost leadership and differentiation approaches (Shepherd & Patzelt, 2020). The process relies on precisely engineered molds, which, once created, dictate the exact shape and form of the final product. This standardization ensures consistency and allows for rapid production cycles. Yet, this very rigidity is its Achilles' heel. Once a production line is running, initiated by the creation of these often expensive and time-consuming molds, making changes to the product design or the manufacturing process itself becomes a cumbersome and costly undertaking. Altering a mold, or creating a new one, can halt production, incur significant retooling expenses, and delay market delivery.

This traditional manufacturing paradigm, with its emphasis on upfront investment and subsequent inflexibility, stands in contrast to the opportunities presented by the digital age. As Shepherd and Patzelt (2020) highlight, digital technology introduces the concepts of individualization and interdisciplinarity. This means leveraging digital tools not to fundamentally reinvent existing activities, but rather to streamline and improve them. Individualization and interdisciplinarity is commonly associated with a cost leadership strategy, as it promotes economies of scale via standardized, high-volume production, enabling competitive pricing and strong returns. However, the digital age introduces flexibility alongside individualization and interdisciplinarity, a key competitive advantage traditionally held by medium sized businesses (Fuller Love, 2000). While semi flexible systems like robotic automotive production lines allow for some pre planned customization, they still entail significant tooling and setup expenses. Similarly, app stores utilize intelligent algorithms for automated app recommendation and sales, but also empower customers to discover and select apps based on their individual needs. This newfound flexibility allows companies to pursue differentiation strategies in addition to cost leadership, a concept we will further examine through the lens of individualization.

**Hypothesis (H2):** Individualization will positively influence the cost leadership to competitive strategies

### ***Interdisciplinarity - Cost Leadership***

In the digital age, prior studies indicate that medium sized businesses' proficiency in leveraging digital advancements stems from their digital experience, technological expertise and cost leadership. The technological expertise translates into digital IT capabilities and complements traditional skills, such as marketing knowledge, necessary for delivering market offerings (Agustiansyah & Apriliani, 2023). Consequently, the knowledge required to capitalize on digital opportunities is highly interdisciplinary (Proksch et al., 2021).

The promise of automated individualization – the ability to tailor products and services to the unique needs of each customer on a mass scale – is a tantalizing prospect for medium businesses. Digital technologies are the engine driving this revolution, offering unprecedented capabilities for customization. However, merely adopting these tools is not enough. As highlighted by Putri & Suharto (2022), realizing the full potential of automated individualization hinges on a comprehensive understanding, not only of the digital technology itself but also of the broader ecosystem of relevant disciplines. This method permits the assessment of results across various aspects, even when only a single data point exists for each aspect.

**Hypothesis (H3):** Interdisciplinarity will significantly influence Cost leadership to competitive strategies

### ***Cost Leadership - Competitive Strategies***

Islami et al. (2020) define low-cost leadership as a firm's strategy to gain a competitive edge by reducing its costs relative to its rivals. This strategy often involves streamlining operations, optimizing resource allocation, and minimizing waste to achieve cost savings. However, as David (2017) cautions, firms adopting a low-cost leadership strategy must ensure that their competitive edge is difficult for rivals to imitate. This can be achieved by developing unique processes, technologies, or supply chain management techniques that provide a sustainable cost advantage.

The effectiveness of low-cost leadership strategies has been examined in various industries, with different scholars highlighting its critical role in enhancing firm performance. Anand & Nair (2020) found that low-cost leadership enhances the performance of players in the banking industry. In the restaurant industry in Ghana, Kankam-Kwarteng et al. (2019) established that competitive intensity regulates the connection between low-cost strategy and firm performance. Consider the insights from Franadita and Adhie Husni's (2023) observation of a "batch size one factory." This isn't a futuristic fantasy; it's a present-day reality for many forward-thinking organizations. In such an environment, the core production and delivery mechanisms are highly standardized. Think of modular design principles, automated workflows, sophisticated data analytics, and agile manufacturing techniques. These elements create a predictable and efficient framework.

The progress in the digital age has also supported strategies that integrate both cost leadership and differentiation. Previously, individual solutions required custom programming for each firm, but today, no code platforms allow for the development of tailored solutions. Nevertheless, to maintain a competitive advantage, Netural's market offerings must also rely on an interdisciplinary approach, integrating both digital (Husnah & Suhairi, 2022).

**Hypothesis (H4):** How Consumer Cost Leadership Drives the Adoption of Competitive Strategies

### ***Differentiation - Cost Leadership - Competitive Strategies***

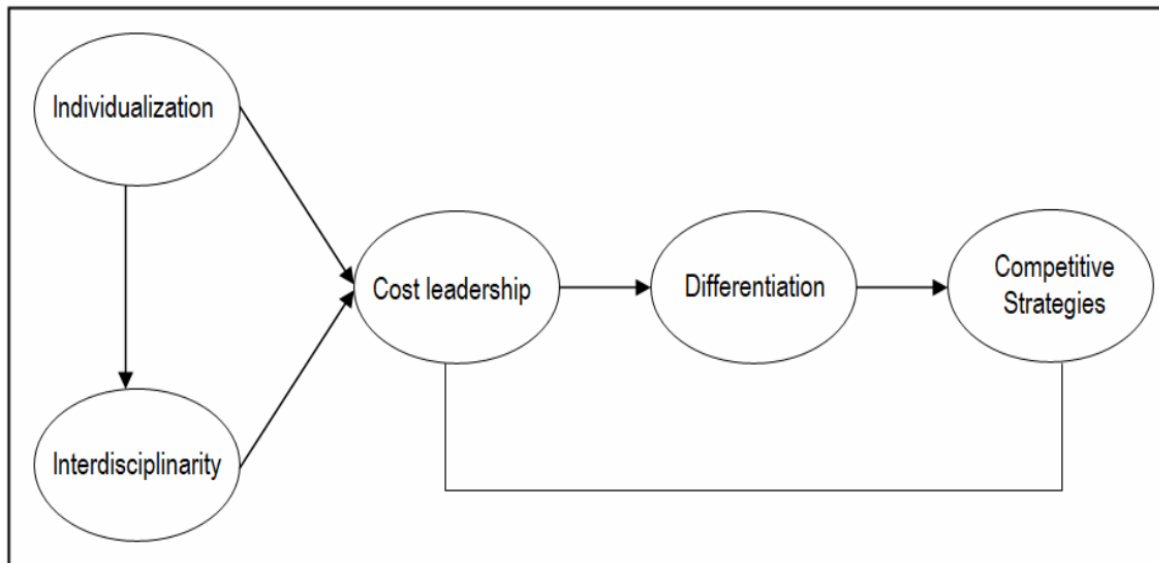
Neutral's cost strategy relies on streamlining operations through differentiation, necessitating a significant degree of standardization. According to the company, a broader service offering in the past hindered standardization and created inefficiencies. A clearer focus today enables the development and implementation of process standards differentiation (Sofiah et al., 2023). Furthermore, process optimization has resulted in enhanced flexibility, allowing for customized packages and cost-effective solutions. Agile development approaches provide the option to adjust project scope to align with budget limitations. This adaptability contributes to cost leadership. The differentiation standardization within Neutral's development and implementation processes not only create a cost leadership (Shevchenko & Nestor, 2023).

Netural's strategy yielded enhanced flexibility and cost benefits and enabled market offering differentiation, primarily through individualization. The firm emphasizes highly individualized market offerings tailored to specific business cases, conceptualizing and implementing digital services with a significant degree of customization for competitive strategies (Salsa Nabila & Fadhilah, 2023). Netural's competitive advantage stems from its ability to create personalized market offerings through digital capabilities. While simultaneously pursuing cost leadership and differentiation can be beneficial, Netural distinguishes itself by embracing interdisciplinarity. This approach, powered by passion, research, and deep expertise in communication, user experience design, and competitive strategy, enables the creation of unique and scalable market solutions (Husnah & Suhairi, 2022).

Beyond internal organizational implications, interdisciplinarity also poses a challenge to how customers perceive a company's market offerings. As one interviewee noted, overcoming disciplinary silos is a significant hurdle for established businesses. Customers often struggle to facilitate interaction and collaboration between different disciplines, both administratively and culturally. The lack of internal cohesion hinders the shortcut between various disciplines, ultimately impacting a company's ability to deliver integrated solutions cost leadership - competitive strategies (Mauro & Pernazza, 2023). Incumbent organizations often avoid efficient shortcuts, especially when those in power benefit from maintaining existing hierarchical or informational structures. They frequently justify inaction by citing standardized processes as an unassailable argument for preserving the status quo. However, Netural's success demonstrates its ability to overcome interdisciplinarity challenges through its market offerings for solutions cost leadership - competitive strategies (Achillas & Raimondo, 2017).

This differentiation is achieved through a strong, user centered approach, where solutions and applications are individualized to meet project needs, delivering highly customized services. Enabled by the intelligent application of digital technologies, Netural empowers to products differentiation, cost leadership, and competitive strategies (Achillas & Raimondo, 2017).

**Hypothesis (H5):** Mediating effect of the differentiation influence of cost leadership for competitive strategies.



**Figure 2: Proposed theoretical framework**

## METHODOLOGY

### *Data and Sample*

The investigation is well-suited to an explanatory case study methodology, enabling the application of to a novel to test causal relationships (Creswell, 2013). Quantitative methods, encompassing data collection, analysis, interpretation, and reporting, offer specific approaches for survey and experimental research. These include identifying samples and populations, defining research designs, collecting and analyzing data, presenting findings, and interpreting results (Punch, 2014). We will employ an explanatory case study methodology for this investigation, as it allows for the application of a pre-defined, this approach is ideal for testing causal and explanatory relationships (Creswell, 2013). In parallel, quantitative methods are utilized to collect, analyze, interpret, and report study results. Within survey and experimental research, specific quantitative methods guide the identification of samples and populations, the specification of research designs, the presentation of findings, and the subsequent interpretation of these results (Punch, 2014).

This study aims to evaluate a theoretical model that identifies marketing and cost leadership as key drivers of owner intentions. The research involved a sample of 300 business owners, selected for their familiarity with specific products or services through judgmental sampling. These participants were chosen because their business experience and knowledge make them suitable sources of information for the research. To gather data, the structured of questionnaire was a developed using pre-existing scales for the key constructs. In addition to these, demographic information, including age, gender,

education, and occupation, was collected to better understand the target respondents (Creswell, 2018). The questionnaire was administered both online and offline. For the offline component, individuals exiting handloom stores within last were approached (Ivankova, 2015).

Questionnaire constructed established scales for the relevant constructs. Furthermore, demographic data encompassing age, gender, education, and occupation were collected to provide a more nuanced understanding of the participant pool (Creswell, 2018). The instrument was deployed via both online and offline modalities. In the offline approach, respondents were identified as individuals exiting handloom stores who had made a purchase of an authentic handloom product within the prior six months (Ivankova, 2015).

### ***Variable***

In this context, new product sales act as a mediating variable, reflecting the impact of market product innovation. Sales, a key performance indicator, directly measure customer earnings, achievable through differentiation or cost leadership strategies (Agustiansyah & Apriliani, 2023).

Individuation and interdisciplinarity, the independent variables, drive the development of differentiation capabilities, enhance cost leadership, and guide competitive strategy formulation (Fachrozie, 2023).

In this study, innovation functions as the independent variable. It is characterized by the implementation of a new or substantially enhanced product, good, service, or process, as well as novel marketing, organizational, or business approaches, including workplace organization and external relations (Indrasari, 2019). The dependent variable in this research is "competitive strategies." These strategies, employed by business actors, are examined for their contribution to achieving goals, including future business development (Berestetska et al, 2023). "Individualization and Interdisciplinarity as independent variables have a role in developing differentiation capabilities, making improvements to the cost leadership aspect and also being a direction in determining competitive strategies" streamlined to be more active and less wordy, for instance: "Individuation and interdisciplinarity, the independent variables, drive the development of differentiation capabilities, enhance cost leadership, and guide competitive strategy formulation."

### ***Measures and Analysis***

To analyze the measurement and structural models, we utilized maximum likelihood estimation. This technique is fundamentally based on multivariate analysis and requires the assumption of multivariate normality, a condition that was evaluated in light of the provided sample.

A sample of 30 individuals was carefully selected from the company under study, prioritizing participants with the requisite competence to contribute meaningfully to the research objectives. Table 1 reveals that the majority of respondents were male (60%), over 40 years of age (43.33%), held a bachelor's degree (56.67%), and possessed 10 20 years of professional experience.

**Table 1: Profile of participants**

Informan	Classification	Frequency (n=300)	Percent (%)
Gemder	Male	180	60.00
	Female	120	40.00
Age (year)	21-29	70	23.33
	30-39	90	30.00
	40-49	130	43.33
	50-59	110	36.67
Level of education	Senor high school	60	20.00
	Bachelor	170	56.67
	Postgraduate	20	6.67
Professoinal expertience (years)	1-5	60	20.00
	6-10	50	16.67
	10-20	140	46.67
<b>Total</b>		<b>300</b>	<b>100</b>

## RESULT

### *Statistical Tools*

The research instrument's reliability was confirmed using SPSS 23.0. As presented in Table 11, all constructs yielded Cronbach's alpha values exceeding 0.70, indicating strong internal consistency. Exploratory factor analysis (EFA) further validated the questionnaire, with each item demonstrating a factor loading greater than 0.60. Confirmatory factor analysis was then conducted on the 24 items using AMOS 20.0. To assess the mediating role of Differentiation between owner Cost Leadership and Competitive Strategies, the process macro technique was employed. Finally, structural equation modeling SEM-AMOS was utilized to examine the influence of Individualization and Interdisciplinarity on the dependent variables.

Table 2, the initial pretest, involving participants, indicated that the Cronbach's alpha for Individualization 0.867; Interdisciplinarity 0.742; Cost leadership 0.839; Differentiation 0.815; and Competitive strategies 0.845. This prompted a review of the literature to source more appropriate scales. Following this refinement, a subsequent pretest with 300 respondents demonstrated that the revised instrument achieved Cronbach's alpha values above 0.70 for all constructs, confirming its reliability for data collection. The research instrument underwent rigorous testing to ensure its suitability for further investigation. Reliability was established using SPSS 25, with all constructs demonstrating Cronbach's alpha values above, thereby confirming their consistency (Nunnally, 1978). The (EFA) was performed to validate the questionnaire's structure, with each item exhibiting a loading exceeding 0.600. The (CFA) was then applied to the 20 items using AMOS. To test the mediating influence of differentiation on the link between owner cost Leadership

and competitive strategies, the process macrotechnique was applied. The impact of Individualization and Interdisciplinarity on the dependent variables was ultimately examined through SEM-AMOS.

**Table 2: Reliability test**

Factors	No. of Items	Cronbach Alpha Value
Individualization	5	0.867
Interdisciplinarity	3	0.742
Cost leadership	4	0.839
Differentiation	5	0.815
Competitive strategies	3	0.845

Source: Own elaboration, 2025.

The measurement model's internal reliability was evaluated using Cronbach's alpha. To confirm the validity of the employed variables, existing measures underwent (EFA) and (CFA). A series of protests were implemented to achieve the desired Cronbach's alpha reliability of at least 0.600 (Hair et al., 1998).

Table 3, presents the results of the reliability test. Notably, these results are sample insensitive. To assess sample adequacy and the suitability of factor analysis, the Kaiser–Meyer–Olkin (KMO) and Bartlett tests were conducted. Internal reliability of the measurement model was established through the computation of Cronbach's alpha. Variable validity was ascertained by subjecting pre-existing measures to (EFA) and (CFA). To meet the established criterion of Cronbach's alpha  $\geq 0.600$ , preliminary testing was conducted. Pretest 1, administered to 15 participants, yielded Cronbach's alpha values of 0.655 for Cost Leadership and 0.690 for Differentiation, which were below the requisite threshold. Consequently, the researchers consulted existing literature to identify alternative measurement scales. A subsequent pretest (Pretest-II) involving 300 respondents confirmed that the revised scales resulted in Cronbach's alpha values exceeding 0.600 for all constructs, thereby validating the reliability of the data collection instrument.

**Table 3: KMO and Bartlett test**

Kaiser–Meyer–Olkin measure of sampling adequacy		0.921
	Approx. chi-square	4158.143
Bartlett's test of sphericity	df	29
	Sig.	0.000

Source: Own elaboration, 2025.

Table 4. The (EFA) was then performed to ensure variable validity. The majority of variables demonstrated factor loadings exceeding 0.50, indicating satisfactory EFA results. The findings of the reliability test are presented, it should be acknowledged that reliability test results are inherently sample insensitive. To evaluate sample adequacy and determine the appropriateness of factor analysis, the (KMO) and Bartlett tests were conducted, with the corresponding outcomes provided. The (EFA) was subsequently implemented to establish the validity of the variables. Factor loadings for nearly all variables exceeded 0.50, signifying satisfactory EFA results.

**Table 4: Exploratory factor analysis**

**A. Total Variance Explained**

Constructs	Total Variance Explained (cumulative %)
Individualization	47.454
Interdisciplinarity	65.471
Cost leadership	64.268
Differentiation	56.110
Competitive strategies	73.576

**B. Exploratory Factor Analysis**

Factors	Inn	Intt	Clp	Dfn	Css
Individualization (Inn)	0.645				
Interdisciplinarity (Intt)		0.718			
Cost leadership (Clp)			0.659		
Differentiation (Dfn)				0.704	
Competitive strategies (Css)					0.635

Source: Own elaboration, 2025.

Table 5, The modification indices was conducted using maximum likelihood estimation, the model demonstrated a satisfactory fit, with key indices including a CMIN/DF of 2.443, CFI of 0.912, GFI of 0.888, and TLI of 0.900.. The root mean square error of approximations (RMSEA) was 0.060, indicating an acceptable model fit.

These results align with established guidelines: CMIN/DF below 3 (Chin & Peter, 1995), TLI above 0.90, and RMSEA below 0.10 (Browne & Cudeck, 1993) all signify good model fit. Modification indices are presented in Table 5. Most CFA loadings exceeded 0.60, and the results of the CFA are displayed.

To assess internal consistency, composite of reliability and average variance extracted (AVE) were calculated and are shown in Table 6. Discriminant validity was established as the square root of AVE for each construct surpassed its correlation with others constructs.

**Table 5: Modification indices**

Test	MeasureMent Model Values	Structural Model		Reference
		Values Reference	Value	
CMIN/DF	2.443	2.323	Less than 3	Chin et al. (1995)
GFI	0.888	0.892	More than 0.90	Hair et al. (1998)
CFI	0.912	0.918	More than 0.90	Hair et al. (1998)
TLI	0.900	0.908	More than 0.90	Hair et al. (1998)
RMSEA	0.060	0.058	Less than 0.1	Browne and Cudeck (1993)

Source: Own elaboration, 2025.

The (CFA), employing maximum likelihood estimation, was performed to assess model fit. The analysis yielded satisfactory results: the chi-square statistic divided by its degrees of freedom (CMIN/DF) was 2.443, the (CFI) was 0.912, the goodness of fit index (GFI) was 0.888, and the index (TLI) was 0.900.

Furthermore, the root means square error of approximation (RMSEA) registered at 0.060, a value indicative of an acceptable model fit.

These fit indices meet established criteria, with CMIN/DF below 3 (Chin & Peter, 1995), TLI at or above 0.90 and RMSEA below 0.10 (Browne & Cudeck, 1993) all suggesting a good model fit.

Modification indices are detailed in Table 5. The CFA also confirmed that nearly all factor loadings were greater than 0.60, and the overall CFA results are reported.

The conducted (CFA) using maximum likelihood estimation, and the model demonstrated satisfactory fit. The fit indices included a CMIN/DF of 2.443, CFI of 0.912, GFI of 0.888, and TLI of 0.900.

The root mean square error of approximation (RMSEA) was 0.060, indicating an acceptable model fit. These values align with accepted benchmarks for good model fit: CMIN/DF less than 3 (Chin & Peter, 1995), TLI of 0.90 or greater (Hair et al., 1998), and RMSEA less than 0.10 (Browne & Cudeck, 1993).

Table 6. presents the modification indices. Additionally, almost all CFA loadings exceeded 0.60, supporting the model's structure.

To confirm internal consistency, composite reliability (CR) and average variance extracted (AVE) were calculated and are reported in Table 6. Discriminant validity was assessed, with the square root of each construct's AVE being greater than its correlation with other constructs.

**Table 6: Discriminan validity**

	SS	SR	Correlations SA	SPV	SPI
SS	1.000				
SR	0.546*	1.000			
SA	0.613*	0.475*	1.000		
SPV	0.549*	0.454*	0.614*	1.000	
SPI	0.339*	0.324*	0.358*	0.588*	1.000

Note: \* Correlation is significant at the 0.01 level (2-tailed).

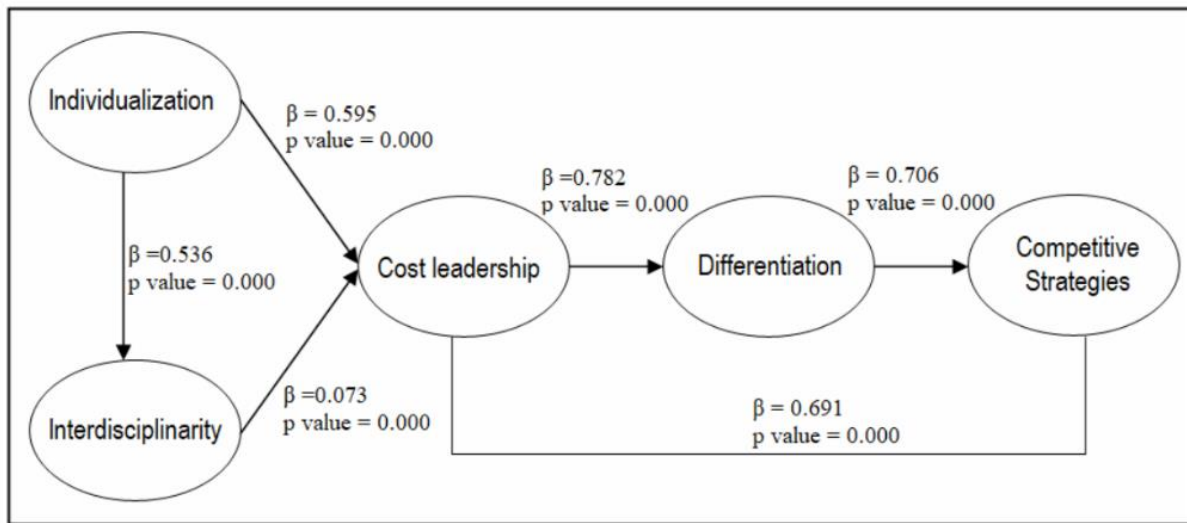
### **Structural ModelsAssessment**

Figure 3, the hypotheses, a structural equation model (SEM) was analyzed using AMOS. The SEM demonstrated a good fit, as indicated by various fit indices: CMIN/DF = 2.323, CFI = 0.918, GFI = 0.892, and TLI = 0.908. The RMSEA value of 0.058 for the measurement model also signifies an acceptable fit, aligning with established guidelines where values below 0.1 indicate a good model fit (Browne & Cudeck, 1993; Hair et al., 1998). Further details regarding the modification indices for both the measurement and structural models are provided.

Hypotheses were tested using structural equation modeling (SEM) performed in AMOS. The SEM achieved a good overall fit, evidenced by a CMIN/DF of 2.323, a CFI of 0.918, a GFI of 0.892, and a TLI of 0.908. The measurement model's RMSEA value of 0.058 also indicates an acceptable fit, as values less than 0.1 are generally considered indicative of a good model fit (Browne & Cudeck, 1993; Hair et al., 1998). Details concerning the modification indices for both the measurement and structural aspects of the model are presented.

The mediation analysis was conducted using the process macro and the bootstrap method, a widely recognized technique for assessing mediating effects (Hair and Sarstedt, 2022). We found no significant direct effect between consumers' cost leadership and competitive strategies ( $p = 0.932$ ). However, a significant indirect effect was observed between consumers' cost leadership and competitive strategies for cultural products, with product differentiation acting as the mediator ( $p = 0.0000$ ). The mediation was further supported by the confidence interval, which did not include zero (LLCI = 0.150, ULCI = 0.150).

The process macro with bootstrapping, a recognized approach for mediation analysis (Hair and Sarstedt, 2022), we found that product differentiation significantly mediated the relationship between consumers' cost leadership and competitive strategies for cultural products. The direct effect between these variables was insignificant ( $p = 0.932$ ), but the indirect effect proved significant ( $p = 0.0000$ ). This mediation was confirmed by the confidence interval, which did not contain zero (LLCI = 0.150, ULCI = 0.150).



**Figure 3: Result for hypotheses with beta value**

## DISCUSSION

Competitive firms must navigate open markets, a reality underscored by liberalization, which necessitates strategic approaches. Firms that incorporate intellectual capital into their financial reporting are demonstrably more competitive and successful (Chiucchi, 2008; Steven, 2011; Youndt et al., 2004). Furthermore, quantifying and assessing the growth of intellectual capital improves a firm's capacity to manage competitive forces, including those arising from free trade (Teece et al., 1997b; Shamsudin et al., 2013). Innovation is particularly crucial for the global competitiveness of dynamic SMEs, especially when their operations are structured to facilitate liberalization. Adopting innovation and a global outlook is therefore paramount for firms seeking to compete effectively in the open economy and on the international stage (Mohd Rosli, 2012).

To compete effectively in open markets, such as those created by liberalization, firms need competitive strategies that address this environment. Research indicates that companies integrating intellectual capital into their financial reporting demonstrate greater competitiveness and success (Chiucchi, 2008; Steven, 2011; Youndt et al., 2004). Measuring and analyzing intellectual capital growth further enhances a firm's ability to leverage competitive forces, including those driven by free trade (Teece et al., 1997b; Shamsudin et al., 2013). For small and medium-sized enterprises (SMEs), innovation is particularly vital for global competitiveness. Consequently, innovative and globally oriented SMEs are better positioned to capitalize on liberalization by adopting strategies that support these activities.

Natural's success demonstrates that strategically leveraging the digital era, through the integration of automated processes, personalized market offerings, and interdisciplinary expertise, can create a highly scalable business model. Traditionally, companies had to select either a cost leadership or differentiation strategy for their market offerings. While

some firms achieved both advantages over time through market dominance, economies of scale, innovative production, and patents, they typically started with a primary focus. However, Netural's approach, automating processes while delivering individualized products via digital technologies, allows for the simultaneous pursuit of both strategies from the outset, avoiding Porter's stuck in the middle scenario. By delivering enhanced customer value through personalized offerings and implementing them with a user friendly and largely automated digital infrastructure, companies can even create disruptive products and services leading to substantial economic and social transformations. This is magnified when firms can capitalize on the network and platform effects enabled by digital technologies.

For interdisciplinarity is exemplified by the Netural case, which demonstrates that a comprehensive strategic orientation demands in depth expertise across multiple disciplines (industry, digital era, and organizational arrangement) and the ability to synthesize them. However, this interdisciplinary dimension poses a substantial challenge for medium sized businesses, both internally and in terms of customer acceptance of their market offerings. Because interdisciplinarity involves reconfiguring knowledge from different fields, internal tensions can arise, potentially leading to organizational difficulties. Therefore, managers should adopt an ambidextrous approach to business model innovation when bridging various knowledge silos, enabling them to navigate tensions between disciplines

Acknowledging the limitations inherent in the chosen theoretical perspective, data, and methodology opens avenues for future research. The reliance on interview data introduces a potential bias due to participants' possible rationalization of past events and behaviors, a limitation inherent in retrospective accounts. To mitigate this, we employed narrative interview techniques and cross validated interview data through triangulation with alternative sources like media reports and factual data. While we took measures to minimize bias, its complete elimination is impossible.

The rapid evolution of the digital era necessitates ongoing updates to the theoretical framework to incorporate emerging dimensions. Our methodology prioritized historical data over future projections; however, considering future trends is crucial. For example, advancements in artificial intelligence and human machine interaction may create novel avenues for competitive advantage beyond the dimensions identified in our framework. We encourage future studies to contribute to the continuous refinement and modernization of this framework.

## CONCLUSION

This paper introduces a theoretical framework elucidating how medium sized businesses can leverage the digital era to achieve a competitive edge. The framework demonstrates that by synergistically integrating the digital era's dimensions of individualization, and interdisciplinarity, medium businesses can simultaneously pursue both cost leadership and differentiation strategies, transcending the traditional trade off. Successful mastery requires a deep understanding of the digital era, acknowledging its limitations, and

creatively harnessing its capabilities. Our contributions span both theory and practice. We reevaluate competitive strategies within the digital context, emphasizing the need for scholarly updates. Furthermore, we highlight the underestimated complexity of leveraging the digital era to create and scale competitive advantages. Our theoretical framework illustrates the potential for medium sized businesses to gain and maintain advantages in this digital landscape.

Consumer cost leadership is not merely a passive market characteristic; it is an active antecedent that significantly shapes a firm's strategic intentions. By intensifying competitive pressure, driving the pursuit of economies of scale, influencing value proposition design, and establishing a strategic imperative for survival, consumer cost leadership unequivocally and positively influences the adoption of competitive strategies. Businesses that fail to recognize and adapt to a cost-conscious consumer base risk falling behind their more strategically agile competitors. Therefore, understanding the nuances of consumer price perception is crucial for developing and implementing effective competitive strategies that ensure long-term viability and success in today's price-sensitive global marketplace. Future research could explore the moderating effects of other factors, such as brand loyalty and perceived quality, on this relationship, providing a more comprehensive understanding of how external market conditions shape strategic decision-making.

### Acknowledgments

Thank you to all parties who participated, as well as the editors and reviewer this journal. This manuscript has not been published or submitted for consideration in any other venue. All participants gave their informed consent, and the study received approval from the ethics committee. We have adhered to the guidelines outlined by your journal and the study remains in compliance with all of them.

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