

STEP 1- Deciding (not) to segment

- Even though being a key marketing strategy, it is not always best to invest time and resources in a market segmentation analysis.
- Market segmentation being a continuous process rather than a one-time effort, requires a long term commitment from the organization.
- It is recommended to conduct segmentation only when costs associated with market segmentations can be justified by expected increase in sales, as strategies like these come with costs of performing research, surveys, designing multiple packages and advertisements.
- Market segmentation may compel the development of new products, alteration of existing products, changes in pricing, distribution channels, and market infrastructures. These changes can impact the internal structure of the organization.
- Croft (1994) suggests that organizations should be planned around market segments rather than products. Strategic business units dedicated to specific segments can help maintain focus on the changing needs of these segments.
- The decision to pursue a market segmentation strategy must be made at the highest executive level and methodically lead into and reinforced throughout the organization to ensure alliance and obligation at all levels.
- Leadership, commitment, and proactive support from senior management are essential for successful market segmentation. Implementation becomes difficult without the active interest of the chief executive.
- Sufficient resources need to be assigned for both the initial analysis of market segmentation and for the long-term execution of the strategy.
- Successful implementation of market segmentation may be hindered by a lack of focus on the market or consumers, reluctance to change, absence of innovative thinking, ineffective communication, short-term mindset, and internal office politics.
- It is crucial to provide adequate training for senior management and the segmentation team. Failure can result from not comprehending the fundamentals or implications of market segmentation. It is also critical to have a formal marketing function and qualified experts in marketing, data management, and analysis.
- Significant barriers can arise from financial constraints or the inability to implement required structural changes. Organizations with limited resources need to make thoughtful choices about which opportunities to pursue.
- To avoid impediments to market segmentation, clear objectives, effective planning, structured processes, responsibility allocation, and time management are required.
- Management's reluctance to use unfamiliar techniques can be mitigated by simplifying market segmentation analysis and presenting results in a visually interpretable format.
- Identifying and proactively removing barriers from the start of a market segmentation study is critical. If the obstacles are insurmountable, the strategy may have to be abandoned.

STEP 2- Specifying the Ideal Target Segment

- To produce useful market segmentation analysis results, user input must be more than just a briefing at the beginning or the conclusion of the process. The user should be involved throughout the market segmentation analysis process, including technical elements.
- After deciding to investigate the value of a segmentation strategy (Step 1), the organization must make a significant conceptual contribution in Step 2.
- This conceptual contribution in Step 2 will guide subsequent steps, particularly Step 3 (data collection) and Step 8 (selecting target segments).
- In Step 2, the organization must establish two sets of segment evaluation criteria:
 - **Knockout criteria:** Essential, non-negotiable features that a segment must have for the organization to consider targeting it.
 - **Attractiveness criteria:** Used to evaluate the relative attractiveness of the segments that meet the knock-out criteria.

Knockout Criteria:

Knock-out criteria are used to determine if market segments resulting from the market segmentation analysis qualify to be assessed using segment attractiveness criteria.

- **Homogeneity:** Members of the segment must approximate each other, guaranteeing a logical and uniform group.
- **Distinctiveness:** The segment must be clearly various from additional divisions, emphasize singular traits that set it separate.
- **Size:** The segment must be big enough to substantiate the supplementary payment of alter the shopping join for allure members.
- **Organizational Strengths:** The sector must equal the substances of the arrangement, aim the arranging must have the wherewithal to assuage the needs of the section members.
- **Identifiability:** Members of the division must be capable of being traced, making it attainable to admit and establish ruling class in the forum.
- **Reachability:** There must be a habit to reach members of the division, guaranteeing that the custom-built shopping join maybe efficiently brought to them.

Attractiveness Criteria:

Attractiveness tests are not binary in character. Segments are not evaluated as either complying a suggestion of correction submit with attraction tests. Rather, each market sector is rated; it may be approximately attractive concerning a particular criterion. The attraction across all tests determines either a market slice is picked as a target section corresponding 8 of market separation reasoning.

Step 2 of a normal market segmentation analysis fails to reach the sector judgment scheme since there are currently now no sectors accessible for evaluation. However, having

experience is a huge advantage when choosing the attraction criteria for retail sectors at this early stage of the process. Having experience precisely agreeing on display sectors that are important to the organization ensures that all relevant information is captured when compiling a dossier (Step 3). It also makes the process of choosing a target chunk much easier because the foundation is established before the actual sectors take the stage.

The market segmentation team should have a list of roughly six segment attractiveness criteria at the conclusion of this process. Each of these criteria should have a weight attached to it to indicate how important it is to the organisation compared to the additional standards.

STEP 3- Data Collection

- Empirical data plays a crucial role in both commonsense and data-driven market segmentation.
- Commonsense segmentation typically uses a single characteristic to divide the market into segments, with additional characteristics serving as descriptor variables to provide detailed descriptions of these segments.
- This helps in crafting targeted marketing strategies. In contrast, data-driven segmentation employs multiple variables to identify or create market segments, providing a more nuanced and potentially more effective approach to understanding and targeting different market groups.
- Market segmentation, whether commonsense or data-driven, relies heavily on high-quality empirical data.
- Commonsense segmentation typically uses a single characteristic, such as gender, to divide the market into segments and employs other characteristics as descriptor variables to provide detailed segment descriptions.
- In contrast, data-driven segmentation uses multiple variables to identify or create market segments, such as grouping tourists based on shared benefits sought during vacations, regardless of their demographic traits.
- The quality of empirical data is crucial for both segmentation types, ensuring accurate segment assignment and description, which in turn supports the development of tailored marketing strategies.
- Empirical data for segmentation can come from various sources, including surveys, observational data like scanner data linked to loyalty programs, and experimental studies.
- While survey data is common, it can be unreliable for socially desirable behaviours, making it essential to explore multiple data sources.
- The best data source is one that closely reflects actual consumer behaviour, as this leads to more precise market segmentation and effective targeting in marketing efforts.

Segmentation Criteria

- Before conducting market segmentation, organizations must decide on the segmentation criterion, a broader concept than segmentation variables, encompassing the nature of information used for segmentation.

- This decision cannot be outsourced due to its need for prior market knowledge. Common segmentation criteria include geographic, socio-demographic, psychographic, and behavioural factors.
- Geographic segmentation, one of the oldest methods, relies on consumers' locations and is straightforward but may overlook other relevant consumer characteristics.
- Socio-demographic segmentation uses criteria like age, gender, and income, which are easy to determine but often provide limited insight into consumer behaviour.
- Psychographic segmentation groups consumers based on psychological factors like beliefs, interests, and preferences, offering deeper insights but requiring more complex data.
- Behavioural segmentation focuses on consumers' actions, such as purchase history or product usage, directly reflecting relevant behaviour.
- Each criterion has its advantages and limitations, with geographic and socio-demographic criteria being simpler but less insightful, while psychographic and behavioural criteria offer more detailed consumer understanding but involve higher complexity and data reliability challenges.
- The choice of criterion should align with the specific product or service and the goal of the segmentation study, balancing simplicity and effectiveness.

Data Sources: From Survey Studies

- Carefully selecting segmentation variables is vital for effective market segmentation.
- In data-driven segmentation, relevant variables must be included to capture the segmentation criterion accurately, while unnecessary variables should be avoided to prevent respondent fatigue and ensure data quality.
- Unnecessary or redundant variables, known as noisy or masking variables, can hinder segment extraction algorithms from identifying optimal market segments.
- To avoid this, survey questions should be well-developed, focusing on essential and unique questions, while qualitative research can provide critical insights that quantitative surveys might miss.
- The choice of response options in surveys significantly impacts the quality of data for segmentation analysis. Binary (0/1) and metric (numeric) data are preferable as they simplify distance measurement in segmentation.
- Although ordinal data, common in survey research, poses challenges due to undefined distances between response options, binary or metric responses are often more effective and straightforward.
- Response styles, such as tendencies to agree with all items or use extreme options, can introduce biases in segmentation results.
- It is crucial to minimize these biases during data collection and, if necessary, conduct additional analyses or exclude biased respondents to ensure the accuracy of market segments.

From Experimental Studies

- Experimental data is another possible source of data that can be used to conduct market segmentation analysis.
- Experimental data can come from both field and laboratory experiments. They could, for example, be the result of tests to see how people react to specific advertisements.
- The response to the advertisement could then serve as a segmentation criterion.
- Choice experiments and conjoint analyses can both generate experimental data. The goal of such studies is to present consumers with carefully designed stimuli containing specific levels of specific product attributes.
- Consumers then indicate which of the products they prefer based on various combinations of attribute levels.
- Conjoint studies and choice experiments yield information on the degree to which each attribute and attribute level influences choice.

From Internal Studies

- Organizations now have extensive internal data to analyse for market segmentation.
- Typical examples include scanner data available in grocery stores, booking data available through airline loyalty programs, and online purchase data.
- This data is valuable because it reflects actual consumer behaviour, rather than statements that may be influenced by poor memory.
- One of the advantages of getting data from internal studies is that data is usually automatically generated and– if organisations are capable of storing data in a format that makes them easy to access– no extra effort is required to collect data.

STEP 7- Describing segments

Describing segments (Step 7) is similar to profiling but involves using additional information not previously considered during the extraction of market segments. This step is akin to getting to know potential segments better, much like dating before committing to a relationship. It helps ensure that the chosen target segment aligns well with the business's marketing strategy.

According to van Raaij and Verhallen (1994), segments should be further described and typified by crossing them with various other variables, such as:

- **Psychographic Variables:** Lifestyle, values, personality traits.
- **Demographic Variables:** Age, gender, income, education level.
- **Socio-economic Variables:** Occupation, social status.
- **Media Exposure:** Preferred media channels, frequency of media consumption.
- **Product and Brand Attitudes:** Preferences, loyalty, satisfaction levels.

Consider a market segmentation analysis using data on travel motives. Profiling would involve investigating differences between segments based on their travel motives, as shown in visual representations like histograms. For example:

- **Profiling:** Examining travel motives across segments might reveal that Segment A values relaxation, while Segment B prioritizes adventure.
- **Describing:** Using additional information such as age, gender, past travel behavior, preferred vacation activities, media use, and expenditure patterns to paint a more detailed picture of each segment.

Visualizing differences in descriptor variables (additional information used in describing segments) is crucial for interpreting data effectively. Common visualization tools include:

- **Histograms:** Useful for showing the distribution of a single variable across different segments. However, histograms might not always make differences between segments clear.
- **Box-and-Whisker Plots:** Provide a clearer comparison by showing the distribution of a variable (e.g., age) separately for each segment. They highlight the median, quartiles, and potential outliers, offering a comprehensive view of the data.

Mosaic plots can visualize tables containing more than two descriptor variables and integrate elements of inferential statistics. This helps in interpreting data more accurately. Key features include:

- **Colour Coding:** Cells are colored based on the standardized difference between observed and expected frequencies.
- **Negative Differences:** Indicate that observed frequencies are lower than expected and are colored in red.

- **Positive Differences:** Indicate that observed frequencies are higher than expected and are colored in blue.
- **Colour Saturation:** Indicates the absolute value of the standardized difference, making it easy to see the magnitude of differences.

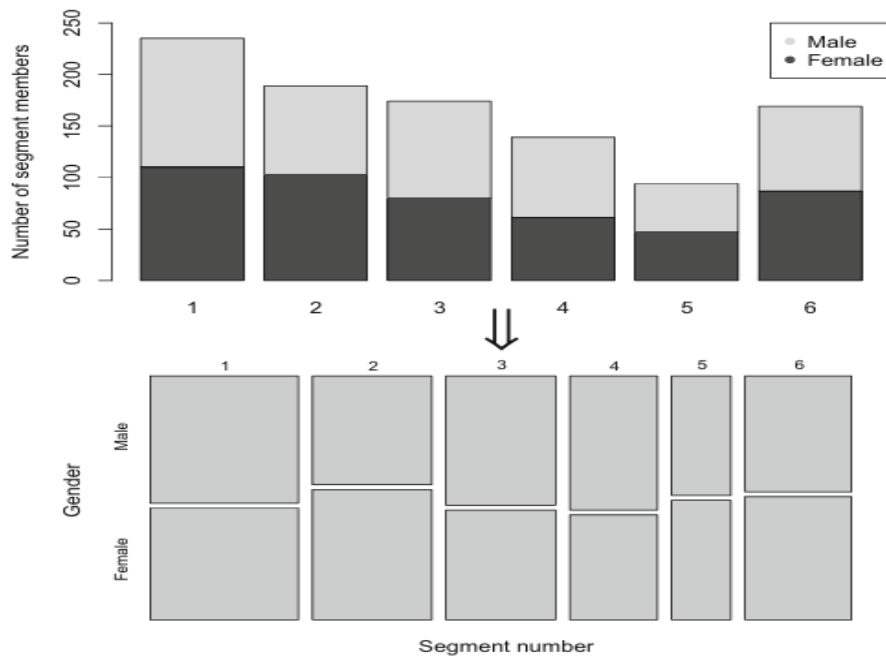


Figure 1 Comparison of a stacked bar chart and a mosaic plot for the cross-tabulation of segment membership and gender for the Australian travel motives data set

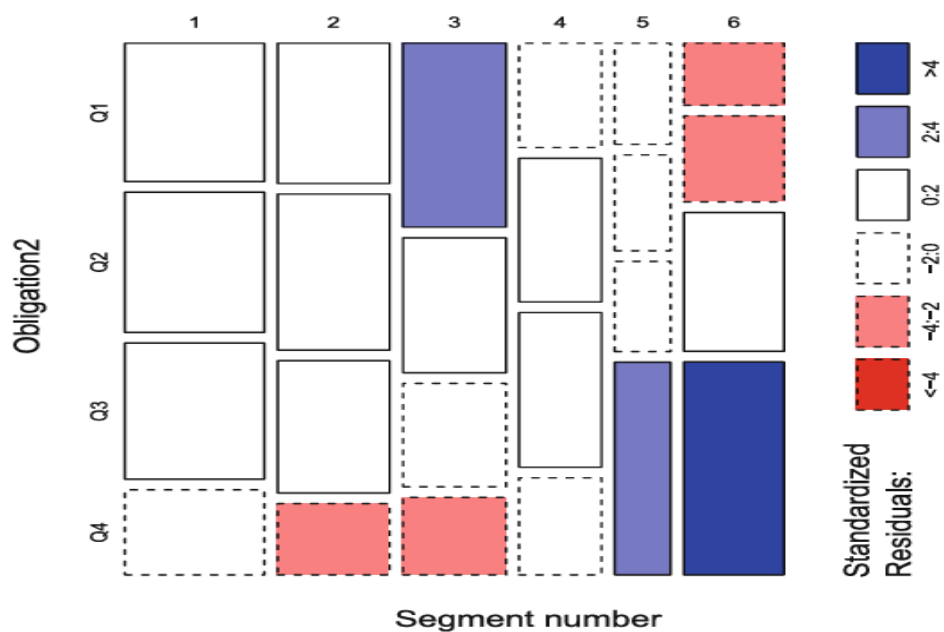


Figure 2 Shaded mosaic plot for cross-tabulation of segment membership and income for the Australian travel motives data set

Metric Descriptor Variables

Descriptor variables provide additional information about market segments, helping to describe and understand differences between segments. They can be divided into nominal, ordinal, and metric descriptor variables. Metric descriptor variables are numerical and measurable. They provide a quantitative basis for segment analysis and include variables such as age, income, number of purchases, and money spent.

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Importance of Metric Descriptor Variables

- **Precision and Detail:** They offer detailed insights into the characteristics of market segments.
- **Comparability:** Metric variables allow for easy comparison across different segments.
- **Action ability:** The quantitative nature makes the data actionable for strategic decisions.

Visualizing Metric Descriptor Variables

Visualizing these variables helps in better understanding and communicating the data. Common visualization methods include:

1. Histograms:

- **Purpose:** Show the distribution of a single metric descriptor variable across segments.
- **Example:** A histogram depicting age distribution across different market segments.

2. Box-and-Whisker Plots:

- **Purpose:** Illustrate the distribution of a metric descriptor variable, highlighting median, quartiles, and outliers.
- **Example:** A box plot showing income distribution for each market segment.

3. Parallel Box-and-Whisker Plots:

- **Purpose:** Provide side-by-side comparisons of a metric descriptor variable across all segments.
- **Example:** Box plots for expenditure patterns to reveal spending habits across segments.

Benefits of Visualizing Metric Descriptor Variables

- **Simplifies Interpretation:** Makes complex data easier to understand.

- **Highlights Significant Differences:** Helps avoid over-interpretation of insignificant variations.
- **Improves Decision-Making:** Supports better strategic decisions by providing clear visual insights.

Practical Application

- **Marketing Strategies:** Tailor marketing efforts based on segment characteristics derived from metric descriptor variables.
- **Product Development:** Inform product features and offerings to align with segment needs.
- **Customer Experience:** Design personalized experiences to enhance satisfaction and loyalty.

Testing for segment differences in Descriptor Variables

Testing for segment differences is a crucial step in market segmentation analysis. It involves statistically analysing whether there are significant differences between market segments based on descriptor variables. This process is essential to validate the distinctiveness of each segment and ensure that the segmentation is meaningful and actionable. The primary purpose of testing for segment differences is to confirm that the identified segments are significantly different from each other, ensure that the differences are substantial enough to justify tailored marketing strategies, and gain deeper insights into the characteristics and behaviors of each segment.

Descriptor variables used in this analysis can be categorized into three types: nominal, ordinal, and metric. Nominal variables are categorical data without a natural order, such as gender or country of origin. Ordinal variables are categorical data with a natural order, like education level or satisfaction ratings. Metric variables are quantitative data measured on a continuous scale, such as age or income.

To test for segment differences, various statistical methods can be applied. The Chi-Square Test is used for nominal and ordinal variables to test whether there is a significant association between segments and categorical descriptor variables. For example, it can be used to determine if gender distribution differs significantly across market segments. The Analysis of Variance (ANOVA) is applied to metric variables to test whether there are significant differences in the means of a metric descriptor variable across multiple segments. For instance, ANOVA can determine if average income differs significantly between segments. Following ANOVA, Tukey's HSD Test can be performed for post-hoc analysis, identifying which specific segments differ. This test can pinpoint which pairs of segments have significantly different average incomes.

Visualizing the differences between segments aids in interpreting and communicating the results effectively. Bar charts can be used for categorical variables to show the frequency distribution of these variables across segments. For example, a bar chart can display the gender distribution in each segment. Box plots are useful for metric variables, showing the distribution and identifying any significant differences. For instance, box plots can compare the income distribution across segments.

Interpreting the results of these tests is crucial for making informed decisions. If the tests show significant differences, it confirms that the segments are distinct and can be targeted with specific strategies. However, if no significant differences are found, it may indicate that the segmentation needs to be revised.

In practical application, the insights gained from testing segment differences can be used to tailor marketing campaigns to specific segments, design products that cater to the needs of different segments, and provide personalized customer service based on segment characteristics. This ensures that businesses can effectively target and serve their diverse customer base, maximizing the impact of their marketing efforts and improving customer satisfaction.

Predicting Segments from Descriptor Variables

Predicting market segments from descriptor variables is a vital aspect of market segmentation analysis. This process involves using statistical models to predict which segment a particular observation belongs to based on its descriptor variables. The primary goal is to create a predictive model that can classify new observations into the correct segments, enhancing the accuracy and efficiency of marketing strategies.

Descriptor variables used for prediction include nominal, ordinal, and metric types. These variables provide the necessary information to build robust predictive models. Nominal variables are categorical data without a natural order, such as gender or country of origin. Ordinal variables are categorical data with a natural order, like education level or satisfaction ratings. Metric variables are quantitative data measured on a continuous scale, such as age or income.

Several statistical methods and machine learning techniques can be employed to predict segments from descriptor variables. One common approach is using logistic regression, which models the probability of a certain outcome based on one or more predictor variables. Logistic regression is particularly useful for binary classification problems but can be extended to multiclass classification using multinomial logistic regression.

Another powerful method is decision tree analysis, which splits the data into subsets based on the value of descriptor variables. Decision trees are intuitive and easy to interpret, making them a popular choice for predicting segments. Each branch of the tree represents a decision rule, and each leaf node represents an outcome, i.e., a market segment.

Random forests, an ensemble learning method, build multiple decision trees and merge their results to improve the predictive accuracy and control overfitting. This method is highly effective for complex datasets with numerous predictor variables. By averaging the predictions of multiple trees, random forests provide a more stable and accurate classification.

Support vector machines (SVMs) are another advanced technique used for segment prediction. SVMs find the optimal hyperplane that separates the data into different segments with the maximum margin. This method is particularly useful for high-dimensional data and complex segmentation problems.

Neural networks, inspired by the human brain's structure, consist of interconnected layers of nodes or neurons. They can model complex relationships between descriptor variables and segments, making them a powerful tool for predicting segments. Deep learning, a subset of neural networks, involves multiple layers of abstraction and is particularly effective for large datasets.

Visualization techniques, such as scatter plots, heatmaps, and confusion matrices, help interpret the results of predictive models. Scatter plots can visualize the relationship between two metric descriptor variables and the predicted segments. Heatmaps display the correlation between descriptor variables and segment membership, highlighting significant predictors. Confusion matrices evaluate the performance of the predictive model by showing the actual versus predicted segment memberships.

The practical application of predicting segments from descriptor variables is vast. In marketing, it enables personalized marketing strategies by accurately targeting customers based on predicted segments. In product development, it helps tailor products to meet the specific needs of different segments. In customer service, it allows for the provision of personalized experiences, improving customer satisfaction and loyalty.

In summary, predicting segments from descriptor variables involves using statistical and machine learning methods to classify observations into segments based on their characteristics. This process enhances marketing strategies, product development, and customer service by providing accurate and actionable insights into market segments. By employing techniques like logistic regression, decision trees, random forests, SVMs, and neural networks, businesses can effectively predict and target the right market segments.

STEP 9- Customising the Marketing Mix

The implications for marketing mix decisions are significant when it comes to segmenting markets. Understanding how different segments respond to various elements of the marketing mix—product, price, place, and promotion—can help businesses tailor their strategies to meet the needs of each segment effectively. This approach ensures that the marketing efforts are more targeted and efficient, leading to better customer satisfaction and improved business performance.

Product Decisions

Different market segments may have varying preferences and requirements for products. By analyzing segment data, businesses can identify which product features are most valued by each segment. This knowledge allows companies to develop products that better meet the needs of their target segments. For example, a segment of young professionals might prioritize advanced technology features in a product, while a segment of retirees might value ease of use and reliability more.

Customization and product differentiation become critical strategies. Businesses can offer different product versions or customize products to cater to the specific preferences of each segment. This can involve varying the product design, features, or even packaging to appeal more directly to the target market. By aligning product development with segment needs, companies can enhance customer satisfaction and loyalty.

Price Decisions

Pricing strategies can significantly impact the buying decisions of different segments. Some segments may be more price-sensitive, while others might be willing to pay a premium for added value or exclusive features. Understanding the price elasticity of demand within each segment allows businesses to set prices that maximize revenue and market share.

For instance, a luxury segment might respond well to premium pricing strategies that emphasize exclusivity and high quality. Conversely, a cost-conscious segment might prefer competitive pricing or discount offers. By tailoring pricing strategies to the specific characteristics of each segment, businesses can optimize their pricing models to attract and retain customers effectively.

Place (Distribution) Decision

The distribution channels preferred by different segments can vary widely. Some segments might prefer online shopping, while others may favour brick-and-mortar stores. By understanding the distribution preferences of each segment, businesses can optimize their distribution strategies to ensure that products are available where and when customers want them.

For example, a tech-savvy segment might prefer purchasing products through e-commerce platforms, while an older segment might favour in-store purchases where they can receive personalized assistance. Ensuring that the product is accessible through the preferred channels of each segment can significantly enhance the customer experience and drive sales.

Promotion Decisions

Promotional strategies need to be tailored to resonate with the target segments effectively. Different segments may respond better to various types of promotional messages and channels. Understanding the media consumption habits and preferences of each segment can help businesses design more effective promotional campaigns.

For instance, a younger segment might be more engaged through social media and digital marketing campaigns, while an older segment might respond better to traditional advertising methods such as TV or print media. By customizing promotional strategies to fit the communication preferences of each segment, businesses can increase engagement and conversion rates.

Integrated Marketing Communication

An integrated approach to marketing communications ensures that the promotional messages are consistent across all channels and touchpoints. By aligning the marketing mix elements with the needs and preferences of each segment, businesses can create a cohesive and compelling brand message that resonates with their target audience.

Practical Applications

The insights gained from segmenting markets and understanding the implications for the marketing mix can be applied in various ways. Businesses can develop more targeted marketing strategies, improve product development processes, optimize pricing models, and enhance distribution and promotional efforts. This leads to better customer satisfaction, increased loyalty, and improved overall business performance.

Code Conversion

[McDonalds Case Study](#)