**PLUGGING INTO THE FUTURE:- AN EXPLORATION OF ELECTRICITY CONSUMPTION PATTERNS USING TABLEAU**

**1. Introduction**

**Management of energy consumption in domestic environment is very important due to high electrical energy prices and impact of electricity production on the environment. Current records of power consumption reporting in Sri Lanka [1] only provides an overall idea about the power consumption of electrical devices. A detailed survey and analysis of power consumption of households in Sri Lanka haven't being conducted yet. The customers don't get a clear idea on how the power consumption was carried out by each device and how each device contributes to the overall power consumption. And also there are no data analysis methods to provide customers a forecasting [9][10] of power consumption using history of power consumption of a consumer.**

**Define problem / problem understanding**

**Defining complex problems: break it down**

**Verifying your understanding of the problems**

**Prioritize the problems: consider "important" and "urgent" problems.Understand your role in the problem: very stressed out, very guilty about your role in the problem.Problem Statement: The end result of problem identification Brief, clear, to-the-point identification of the specific problem to be addressed, including the key rationale for why it should be solved.**

**The first stage of problem solving is to understand the problem.Understanding a problem means turning an ill defined problem into a well defined problem, without any ambiguity.To solve the problem you must have knowledge of the problem domain.**

**Businessn Requirement**

**Business Research Problems When analyzing business problems, three things must be considered:Managers and decision-makers have total certainty about the underlying problem situation (rare in practice)Managers and decision-makers have little or no information about the problem situation on which to proceed on and the objectives and alternatives are either not, or are very vaguely defined (extreme cases)Managers and decision-makers grasp the general nature of the objectives they desire to realize, but lack sufficient information on the nature of the underlying business problem situation.**

**Specify The Business Problem**

**One of the more difficult tasks is identifying the business problem that needs to be solved. Very often, other aspects of the**[**BI**](https://www.sciencedirect.com/topics/computer-science/business-intelligence)**program can feed into this process. If you recall our “analysis spectrum” from Chapter 1, the first step is awareness of an issue (what happened), which is then followed by understanding the root causes (why it happened).**

**For example, an**[**OLAP**](https://www.sciencedirect.com/topics/computer-science/online-analytical-processing)**report may indicate that sales of one class of product in the Northeast region may lag behind sales in other regions or that the average wait time at the inbound call centers peaks at certain times of the day. After being alerted to this situation, it would be useful to understand why this sales lag exists, and this type of question provides a starting point for formulating the business problem to be examined.**

**Other kinds of business problems are actually part of the general business cycle. For example, planning a new marketing campaign and understanding customer attrition are frequent business problems that can be attacked through data mining. Once the problem has been identified and a goal set (e.g., lower the attrition rate by 50% or relieve the issues that are causing sales to lag in particular areas), you must assemble the right data needed for analysis and then move on to the next stage.**

**Literature Survey**

[**View chapter**](https://www.sciencedirect.com/science/article/pii/B978012385889400017X)

* **Contextualize the research problem:**

**It helps researchers understand the current state of knowledge in a field, identify key concepts, and situate their own work within the existing scholarly conversation.**

* **Identify research gaps:**

**By analyzing previous studies, researchers can pinpoint areas where further investigation is needed, justifying the novelty and significance of their own work.**

* **Inform research design:**

**A literature survey can reveal effective methodologies, potential challenges, and relevant theoretical frameworks that can guide the design of a new study.**

* **Establish credibility:**

**Demonstrating familiarity with the existing literature enhances the researcher's credibility and expertise in the field.**

* **Develop a theoretical framework:**

**It helps researchers understand the theoretical underpinnings of their topic and build a solid foundation for their own research.**

* **Evaluate existing research:**

**By critically analyzing previous studies, researchers can identify strengths, weaknesses, and contradictions in the literature.**

**Social Or Business Impact**

"Business social impact" encompasses a company's far-reaching influence on social and environmental issues, highlighting its pivotal role in driving meaningful and constructive changes beyond mere financial gains. It signifies a company's commitment to making a positive difference in the world by addressing societal concerns and taking proactive measures to protect the environment. By prioritizing social and environmental responsibility alongside economic success, businesses can harness their power and resources to create a sustainable and inclusive future for all. Through collaborative efforts and innovative initiatives, companies can leverage their influence to drive positive change, leaving a lasting[impac](https://www.sopact.com/guides/impact-measurement)t far beyond their bottom line.