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[April 2022 Edition](#)
[May 2022 Edition](#)
[June 2022 Edition](#)
[July 2022 Edition](#)
[August 2022 Edition](#)
[September 2022 Edition](#)
[October 2022 Edition](#)
[November 2022 Edition](#)
[December 2022 Edition](#)

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[1](#) [2](#) [3](#) [4](#) [5](#) [6](#) [7](#) [8](#) [9](#) [10](#) [11](#) [12](#)

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Experimental comparison of the Performance of a Domestic Vapour Compression Refrigeration system using hybrid (circular-triangular) finned- and single-finned Condensers[Full-Text]

Ayodeji, O. Z., Akinola, A. O. and Fapetu, O. P

The performance of a domestic refrigeration system using hybrid and single geometry finned condensers is evaluated in this paper. The Test Rig comprised a 1/8 sized domestic refrigerator working on R600a refrigerant, developed hybrid condensers and instrumentation part (temperature data logger 3 pressure gauges, temperature recorders) Results showed that circular-triangular hybrid finned condenser is more efficient than the existing conventional type with average coefficient of performance of 0.683, 0.710, 0.727, 0.710 (for hybrid), and 0.683, 0.721, 0.710, 0.058 (single) over the load variations of ambient, 30 oC, 40 oC, and 50 oC. Hybridization of extended surfaces is another passive method of augmenting the heat transfer rate of heat exchangers

Statistical Relevance of Variations in Condenser extended surfaces geometries and Heat loads on Properties for estimating Performance of Components of Refrigeration System[Full-Text]

Ayodeji, O. Z

The performance of any system is a joint function of the performance of its individual components. This paper presents statistical interpretations of the effects of variation in condenser enhancing surface geometries and inherent thermal loads of refrigerating items on measured thermodynamic properties used in estimating the performance of components of household refrigeration system. Statistical analysis of the experimental data obtained was done with Analysis of Variance (ANOVA) technique using Minitab software.

A study on impact of Consumers preference (7 P's) and consumers buying behavior towards soft drinks with special reference to youth[Full-Text]

Dr. Vanitha Esaimani

It is well known that consumers brings business to organizations and hence is a critical aspect in the context of stable business. It is thus required to understand their behaviour as a key aspect in developing and implementing any marketing strategy. Consumer behaviour is the study of why they buy (price, promotion), what they buy (product), where they buy (place), how they buy (shopping methods) and so on. It is also the study of factors that affect the behaviour both internal and external such as, self-concept, social and cultural background, age, family, attitudes, personality and social class.

Study the Effect of Sheet Pile Under The Floor of Kufa Barrage In Iraq by Using the Finite Element Software (ANSYS)[Full-Text]

Mohammed Hamid Rasul, Laith Falah Hasan, Nimran Faris Hamad

In this research, a finite element software (ANSYS) has been used to simulate one of the important problems of most hydraulic structures which is seepage and piping under Kufa barrage in Iraq. A Sheet pile would be used to control it and would discuss several cases for location and number of sheet piles under floor of structure.

The Versaille Peace Treaty and Post Conflict Resolution in Europeand The World[Full-Text]

THEOPHILUS, OYIMEADEJUMO

The contemporary world is pregnant with a lot of battles. More often than not, these wars end with post-conflict resolution mechanisms. This paper examines the 'unfair' treatment meted out to Germany by the League of Nations at the Versailles Peace Conference of 1919, in the aftermath of World War 1. From the fundamental premise, the paper addresses the following questions among others: what were the terms of settlement?

I.S.Prasad

Measurements are Essential & Measurement Correctness or Traceability of measurements is assured by Calibration. There are millions of Calibration laboratories that claim & perform calibration of oscilloscopes and claim superiority over others by virtue of Accreditation. This Paper gives insight in to the Quality of Assessment of Labs by the Accreditation body through analysis of "Open Source Data" available in "Public Domain"

Uncertainties in Building Refurbishment Projects; an Exploratory Factor Analysis (EFA) Approach[\[Full-Text \]](#)

Adel Noori, Mohammadreza Mokariantabari

Building refurbishments involve improvement, repair, retrofit, renovation, and upgrading of existing buildings. It is an important sector of the construction industry. Building refurbishment projects are more uncertain than new-build projects. This paper adopted the quantitative approach and Exploratory Factor Analysis (EFA) to grouping uncertainty in building refurbishment projects in Malaysia. The questionnaire sent to managers and professionals from construction and architectural firms in Malaysia

Selection of Suitable Land Areas for Creating Urban Park within the Jaffna Municipal Council Area, Jaffna, Sri Lanka[\[Full-Text \]](#)

Kabilan Suntharamoorthy

This descriptive study was aimed to identify suitable land area for creating Urban Park within Jaffna Municipal Council (JMC) area. The ultimate objectives of this study were (1) to identify criteria that are important to consider in the process of creating urban park within an urban area and (2) to evaluate the interdependency of the identified criteria based on the priority of influence on finding a suitable area to create urban park within an urban area.

Modular Modified Dynamic Neural Network Controller For Load Frequency Control[\[Full-Text \]](#)

T. Rathimala, M. Kamarasan

In this paper the Modular Modified Dynamic Neural Network (MMDNN) Controller for load frequency control of two area power system is presented. The performances of MMDNN Controller and conventional MNN controllers are compared for Single area and two area power system with non-reheat turbines. The effectiveness of the proposed controller is compared by applying load disturbances. The dynamic response of the load frequency control problem is studied using MATLAB Simulink package. The results indicate that MMDNN Controller exhibits better performance.

Russo-Chinese Pact in The Aftermath of Soviet Dis-integration in Central Asia & It's Implications For India[\[Full-Text \]](#)

Saptarshi Majumdar

The march of Shanghai Five¹ started in 1996 by Russia, China and the three bordering post-Soviet Central Asian states – Kazakhstan, Tajikistan and Kyrgyzstan which afterwards turned into the Shanghai Cooperation Organization in the year of 2001 on June 15th with the inclusion of the 4th former Soviet Central Asian Republic of Uzbekistan into the organization, provides the formal structure of Sino-Russian strategic partnership in Central Asia. It began with confidence building measures (CBMs) on the border and subsequently included other fields of cooperation.

Magnetic Resonance Imaging of Aggressive Septic Sacroiliitis – A Case Study[\[Full-Text \]](#)

Brcaninovic Adel, Delic Adila, Corovic Halil, Salkica Nusret, Šešić Zec Tanja.

Sacroiliitis is an inflammation of the sacroiliac joint (SI), usually resulting in pain. Often it is a diagnosis of exclusion. The sacroiliac joint is one of the largest joints in the body and is a common source of the buttock and lower back pain. It connects the bones of the ilium to the sacrum.

ANALYSIS OF ONLINE LOAN SERVICES AT FINANCIAL TECHNOLOGY COMPANIES IN INDONESIA[\[Full-Text \]](#)

Putri Viyola Simarmata, Willy Putra

The development of technology and information have brought to light new innovations in the financial sector. Financial services are currently developing in the financial technology industry or what is called Fintech. Fintech is a type of innovation in the field of financial services. A new company that's developed in an online form of loans with no collateral or filing done through an app on a smartphone.

FAILURE INVESTIGATION OF A STEERING BEARING IN MATIC MOTORCYCLE 125 cc[\[Full-Text \]](#)

Nur Aidi Ariyanto, Sri Nugroho, Rifky Ismail

A Motorcycle is light vehicles that have a lot of systems that work together and link each other such as chassis system, power train system (engine), brake system, electrical system, suspension system, etc. Bearing is one among other supporting parts of a motorcycle. It's steering bearing and wheel bearing. Steering bearing is usually exchanged faster than wheel bearing. Steering bearing is a thrust bearing type that able to support axial force, transversal force and also impact force. Failure was happened in steering bearing because of miss assembling, overload

FAILURE INVESTIGATION OF A STEERING BEARING IN MATIC MOTORCYCLE 125 cc

Nur Aidi Ariyanto, Sri Nugroho, Rifky Ismail

Abstract : A Motorcycle is light vehicles that have a lot of systems that work together and link each other such as chassis system, power train system (engine), brake system, electrical system, suspension system, etc. Bearing is one among other supporting parts of a motorcycle. It's steering bearing and wheel bearing. Steering bearing is usually exchanged faster than wheel bearing. Steering bearing is a thrust bearing type that able to support axial force, transversal force and also impact force. Failure was happened in steering bearing because of miss assembling, overload carrying, bad road condition and lack of grease.

Keywords : Bearing, Failure Analisis, Motorcycle, Transportation, Grease, False Brinelling, Fretting

1 INTRODUCTION

MOST transportation in Indonesia is continent vehicles, one of them is a motorcycle. A motorcycle was produced to made people traveling easily, therefore parts of it were designed to be effective and efficiency by using high-quality materials. [1]

A motorcycle is light vehicles that have a lot of systems that work together and link each other such as chassis system, power train system (engine), brake system, electrical system, suspension system, etc. [2]

While motorcycle being used, there are a lot of components that moving in translation motion, rotating motion or both, also there is a vibration effect because of the motion and the road condition. The component that moves in rotation motion and vibrated is steering bearing. Steering bearing is the component that supports the weight of the motorcycle at the front side and swing to control the drive of the motorcycle.

This study is to reveal the cause of the failure of steering bearing in a motorcycle. In this case, the failure condition happened when the steering is heavy to turn left or turn right because there are some scratch inside the raceway of the steering bearing.

Bearing is one part of the engine element that plays an important role because the function of the bearing is to support a shaft to rotate without excessive friction. The bearing must be strong enough to hold the shaft and also other components while working.

Bearing is a component used to support a loaded shaft so that the rotation can be smooth, safe and resistant. The bearing also separates the rotating part (rotor) from the stationary part (stator). Bearings can carry radial, axial or angular that combination of both, and must be sturdy. If the bearings do not function properly, the performance of the entire system will decrease and may not work properly.

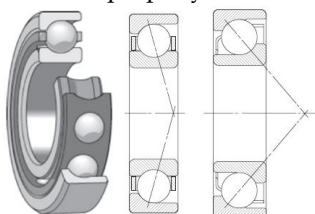


Fig. 1. Angular bearing [3]

2 BACKGROUND

There are some bearing in the motorcycle such as wheel bearing and steering bearing, Steering bearing is usually exchanged faster than wheel bearing. This study is to reveal the cause of the failure of steering bearing in a motorcycle. In this case, the failure condition happened when the steering is heavy to turn left or turn right.

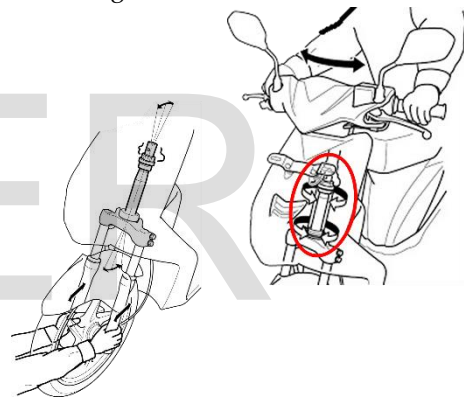


Fig. 2. Position of the steering bearing in a motorcycle [2]

Steering bearing in a motorcycle is an angular bearing type that supports axial and radial load as shown in Figure 2. Steering bearing contains 2 pairs bearing that located above and below steering axle as shown in Figure 3.

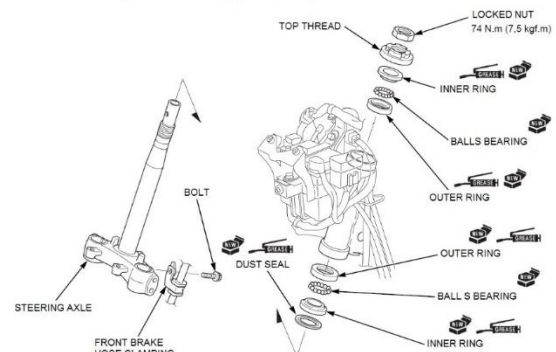


Fig. 3. The component of the steering system [2]

Experimental comparison of the Performance of a Domestic Vapour Compression Refrigeration system using hybrid (circular-triangular) finned- and single-finned Condensers

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Abstract: The performance of a domestic refrigeration system using hybrid and single geometry finned condensers is evaluated in this paper. The Test Rig comprised a 1/8 sized domestic refrigerator working on R600a refrigerant, developed hybrid condensers and instrumentation part (temperature data logger 3 pressure gauges, temperature recorders) Results showed that circular-triangular hybrid finned condenser is more efficient than the existing conventional type with average coefficient of performance of 0.683, 0.710, 0.727, 0.710 (for hybrid), and 0.683, 0.721, 0.710, 0.058 (single) over the load variations of ambient, 30 °C, 40 °C, and 50 °C. Hybridization of extended surfaces is another passive method of augmenting the heat transfer rate of heat exchangers

Index Terms: Refrigeration system, condenser, fins, augmentation technique, hybrid, energy, performance

Nomenclature

Q' : Heat flux (KJ/m²)
 h'_g : Refrigerant heat transfer coefficient (W/m² °C)
 T'_g : Refrigerant mean Condensing Temperature (°C)
 T'_i : Condenser nodal internal wall temperature (°C)
 $\Delta t'_g$: Nodal differential temperature (°C)
 Cp_g : Refrigerant specific heat at constant pressure (kJ/kg °C)
 T_g : Refrigerant temperature (°C)
 A_f : Total finned area (m²)
 P_{abs} : Absolute Pressure (kPa)
 P_{cpd} : Discharge gauge Pressure (kPa)
 P_{cps} : Suction gauge pressure (kPa)
 V_p : Piston displacement (m³/s)
 ρ_{rs} : Refrigerant density at suction pressure (kg/m³)
 h_{sccp} or h_{sp} : Refrigerant enthalpy at suction (kJ/kg/°C)
 h_{ccd} : Refrigerant enthalpy at condenser discharge pressure (kJ/kg/°C)
 A_{fc} , A_{ft} : surface area of circular fin, triangular fin (m²)
 h'_g : Refrigerant heat transfer coefficient (W/m² °C)
 N_{f1} , N_{f2} : number of similar fins (24)

l_{cd}' : length of unfinned coiled part of condenser tube (m)
 l_d^i : extending length of condenser from it exit to dryer inlet (m)
 l_{fc} : horizontal finned length of coiled condenser tube (m)
 l_{usc} : unfinned length of coiled condenser tube (m)
 l_{ecn} : extending length of condenser from compressor exit (m)
 $\frac{h_c}{n}$: Condenser tube pitch (m)
 W_{cm} : Work of compression (W)
 h_{cd} : Refrigerant enthalpy at Compressor discharge pressure (kJ/kg/°C)
 h_{cs} : Refrigerant enthalpy at Compressor suction pressure (kJ/kg/°C)
 T_{av} : Average air Temperature (°C)
 n : Number of condenser loop
 η_f , η_{f1} , η_{f2} : efficiency of the extended surface fin (%)
 L : Characteristic length of fin (m)
 p_c , p_s , or p_t : Fin Perimeter (m)
 d_i : Condenser tube inside diameter (m)
 d : diameter of a fin (m)
 s : side length of a square fin (m)
 t : length of side of a triangular fin (m)
 V_p : Compressor piston displacement (m³)

A study on impact of Consumers preference (7 P's) and consumers buying behavior towards soft drinks with special reference to youth

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Abstract: It is well known that consumers brings business to organizations and hence is a critical aspect in the context of stable business. It is thus required to understand their behaviour as a key aspect in developing and implementing any marketing strategy. Consumer behaviour is the study of why they buy (price, promotion), what they buy (product), where they buy (place), how they buy (shopping methods) and so on. It is also the study of factors that affect the behaviour both internal and external such as, self-concept, social and cultural background, age, family, attitudes, personality and social class. In this study, an attempt is made to investigate the consumer preference on buying behaviour towards soft drinks. For this purpose, 292 sample respondents were selected from selected area (Kandivali to Virar) in Mumbai suburban area. All the respondents are between the age group of 16 to 30 years. For the primary data researcher has used the questionnaire. Author has also formulated few hypotheses and used F test, t test to test them. Product innovation, price, promotion and distribution are important factors that have influence on consumer buying behaviour. Finally, researcher was able to found some of the buyer characteristics. Knowing such features of the buyers by their choice of preferences provide more meaningful ways to identify and understand different customer segments and marketing strategies.

Key Words: Consumer buying behaviour, buying soft drinks, product, price, place, promotion.

Objective: The main objective of this paper is to highlight findings of the study in the context consumers buying behavior towards soft drinks with special reference to youth.

Methodology: This paper is mainly based on primary data collected by the author. The articles which are published on consumer buying behavior related to soft drinks have been studied for the study.

1 Introduction

What is Soft Drink?

Soft drinks can be classified into major heads namely carbonated and non-carbonated drinks on the basis of their composition. A soft drink carbonated beverage is a non-alcoholic beverage that typically contains water a sweetener, and a flavoring agent. The sweetener may be sugar, high-fructose corn syrup, or a sugar substitute (in the case of diet drinks). For e.g.:- Coca-Cola, Thumbsup, Mazza, Mountain Dew, Sprite, 7Up, Mirinda, Fanta, Limca Appy Fizz, and so on. Non-carbonated drinks can be further classified into nectar and juices. Nectar is made from fruit or vegetables but with 25% to 99% juice content and usually with added sugar

and juice mostly contains natural fruit or vegetables. It is prepared by mechanically squeezing or macerating fresh fruits or vegetables. Juice is always 100 % fruit juice e.g. Real Fruit and Vegetable juices, Tropicana Juices and so on to name a few. (Ubeja and Patel, 2014) [1].

A soft drink (also referred to as soda, pop, soda pop, coke or fizzy drink) is a drink that typically contains no alcohol, though may contain small amounts (typically less than 0.5% by volume) and is usually referred to as a sugary drink. Soft drinks are often carbonated and commonly consumed while chilled or at room temperature. Some of the most common soft drinks include cola, flavored water, sparkling water, iced tea, sweet tea, sparkling lemonade (or other lemon-lime soft drinks), squash, fruit punch, root beer, orange soda, grape soda, cream soda, and ginger ale. The term "soft" is employed in opposition to "hard", i.e. drinks with high alcoholic content by volume. Generally, it is also implied that the drink does not contain milk or other dairy products. (Ramana and Mallaiah, 2018) [2].

India's soft drink industry is growing and its per-capita soft drink consumption to be almost double to 84 bottles a year by 2021. The industry growth is supported by various factors or the key growth drivers. These are increasing youth population that has attraction towards soft drink, under-penetration of the segment, growing middle class, rising affordability and urbanization, and continued innovations towards product, packaging and sizing. With changing times the situation is changing now. Within carbonated drinks, non-cola carbonates, especially lemon-based ones, are expected to grow faster. It is observed that carbonated beverages account for 51% of PepsiCo's sales volumes in India. It is also seen that the bottled water category is expected to see a robust volume growth in urban areas. This is mainly due to the increasing awareness about water-borne diseases among consumers and scarcity of drinking water in the urban areas. Moreover, rising health awareness is also resulting in growth of juice consumption and it is increasingly becoming part of the regular breakfasts and social gatherings (ETNews, 2019) [3].

2 Literature Review

Consumer buying behavior is a human behavior with a procedure associating numerous events which involves analyzing, feeling and behaving, as an individual address the existing needs. As a field of study, consumer behaviour is the science of studying a set of value-seeking activities in exchange of their existing resources such as; time, money and effort of consumers which is motivated by addressing real needs. There are several definitions of consumer buying behaviour; however most of the definitions are similar in