

Review of Literature of the Marketing Effect of Vehicular Art in New Methods to Regenerate Clothing Design in South Asia Fashion Industry

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Abstract: *The marketing effect of vehicular art in new method to regenerate clothing design in South Asia fashion industry. For this module I was to think of a thought that would be comprehensively acknowledged in the South Asia Fashion Industry or change the flow of it. Accordingly, I chose to settle for something that I see as novel and creative and could well be that it will hit the South Asian design industry as the most recent pattern in future if legitimate arranging and advertising systems are embraced to guarantee the supportability of this imaginative thought. This will raise the social wiped out plan into the form business in novel outline and style, which will be generally acknowledged and won't blur away a social legacy plan into the past.*

Keywords: *Industry, Vehicular, International Market, Design, South Asia, Fashion Industry*

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I. Introduction

My paper was to think of a thought that would be comprehensively acknowledged in the South Asia Fashion Industry or changes the elements of it. In this manner I chose to settle for something that I see as novel and imaginative and could well be that it will hit the South Asian mold industry as the most recent pattern in future if appropriate arranging and advertising methodologies are embraced to guarantee the manageability of this creative thought.

II. General Introduction

The main rickshaws or three wheeled "baby taxicabs" were presented in Bangladesh in the 1930's from Japan and inside 10 years their fame expanded to meet the requests of the developing population. In any case, it was not until the 1950's that individuals attempted to be imaginative and give the conventional crafted works of Bangladesh another frame. Which was fundamentally embraced as a promoting methodology by the uneducated rickshaw proprietors and drivers soon got to be distinctly popular and changed into an income creating industry itself. It was trusted that the fancier the fine art on the rickshaws, the more clients it should draw in and thus the more prominent the benefit of the "rickshaw wallah" (rickshaw proprietor and driver). Vehicle Art in Bangladesh or all the more particularly talking in the capital city Dhaka is an interesting type of workmanship that is the creation and development of the free craftsmen who are employed for this reason.

Presently let us experience what Rickshaw Art really is. Rickshaw workmanship incorporates painting, appliqué, cleaning, enhancing and beautification of the three-wheeled vehicle, which can likewise be for the most part depicted as a greater size of tricycle. Experienced craftsmen on the tin and metallic packaging of the vehicle do the work of art of everything without exception, going from dynamic examples and plans to nitty gritty representations of famous people and open figures. While, appliquéd flower outlines and geometrical examples can be unmistakable on the rexine or shabby calfskin covering of the hood of the vehicle. Different improvements, for example, bright lights, dubiously sounding horns, decorations and tufts may likewise be utilized to additionally embellish the rickshaw, which is the sole method for money for these rickshaw drivers.

While I was in the underlying periods of my exploration for this proposition, a few circumstances I ran over the expression "the craftsmanship display on the wheels" or "outline of vehicle" in various articles or online web journals archived or posted by various writers. Be that as it may, since the general view of the considerable number of creators who have dealt with this subject before me and taken as much time as is needed report it, continues as before; the portability of this fine art, I excessively chose, making it impossible to take after the idea and see as exceptional and inventive thought to make it the theme of my examination venture and proposal.

While I was in the initial phase of my research for this thesis, several times I came across the phrase “the art gallery on the wheels” or “design of vehicle” in different authors. But since the general perception of all the authors who have worked on this subject and taken their time documenting it, remains the same; the mobility of this art form, I decided to take it as an inspiration and perceive the concept as unique and innovative idea to make it the topic of my research project of my thesis.

A few circumstances a correlation was made where cycle rickshaws of Bangladesh were contrasted with comparative vehicles around the globe, for example, the 'Tuk-Tuks' found in Bangkok, the "trishaws" in Malaysia, the "jinrikisha" in Japan or the cutting edge auto rickshaws in Pakistan, India, Nairobi and a few different spots were described as "no match" for the exceptionally decorated Bangladeshi rickshaws. While whatever is left of the world has embraced effortlessness and style in their plans of this vehicle, in Bangladesh the craftsmen are at the freedom of being wild and whimsical with their outlines and work of art. Furthermore, that what moved me to bring that sort of excessively innovative and "visionaries" fine arts into my exploration extend and change it into something that may have never been proposed as Fashion Label.

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Something else that I might want to be remark here is that my research does not just incorporate the rickshaw specialty of Bangladesh. Despite the fact that it constitutes to 70% of my work, the other 30% was an examination into the world celebrated Truck Art of Pakistan which in spite of the fact that shares the inventive components of the rickshaw workmanship however goes past those limitations as far as a greater size and subsequently gives more space, or in basic words a greater canvas, for the outflow of specialists' contemplations, creative energy and feelings.

The primary trucks that were generally utilized as a part of Pakistan, then piece of British India, were Bedfords imported after World War I. A large portion of these are as yet running in the more rustic and segregated courses, where they're known as "Rocket Trucks."

Pakistan's enhanced trucks redid to have high wooden heads on the front of the truck bed—known as the "Taj," or crown—and in addition substantial ornamental guards and wooden framing inside and outside the lodge, trimmed with many stamped metal plates, extravagantly painted boards enumerating flying creatures, holy people, and scenes, and a long skirt of several chains with chimes on their finishes, giving the vehicles their regular English moniker, "jingle trucks." that emerges in their brilliant and dynamically luxurious feel, all of which were adorned in progressively lavish ways.

Also, as the scope of my research widened so did my perception about my first proposed subject. I craved chipping away at a combination of both Truck and Rickshaw craftsmanship in light of the fact that regardless of the possibility that the topic continues as before, one can't deny that each country follows its general public and advanced culture from a much profound attached convention going back to thousand year old developments which still by one means or another effects and controls our general conduct, musings and convictions which change from country to country.

III. Literature Review

The cycle rickshaw is the pre-overwhelming method for transport in Bangladesh. It gives individual transport at a cost decided not by the tremendous cost of imported oil but rather by the scarcely subsistence level of wages of the landless poor. It therefore makes utilization of Bangladesh's most copious asset, her kin. 66% of Dhaka's activity is comprised of an expected 150,000 rickshaws. There are thought to be around a million in the nation in spite of occasional endeavors to farthest point them by governments humiliated by what they see as an indication of backwardness. The personal satisfaction for the drivers - still known as rickshaw pullers in spite of the fact that the hand pulled rendition has now vanished - is poor. Few live past 40, yet their profit is far higher than the horticultural wages they deserted in the towns. Regularly they are supporting families abandoned.

In Dhaka, they are generally fortunate in the chain of command of the urban poor. The machines they battle to pedal, with two travelers or an overwhelming products stack on board, developed from the hand pulled rickshaw configuration coupled to the 1900s English policeman's bike, which is still fabricated by the million in India and China. The rickshaws are amassed piece by piece in particular workshops in the urban areas. The plan is a long way from ergonomic. The superfluous weight, larger than usual casing and high focus of gravity put an unnecessary strain on the puller. Another plan has been created with assistance from the Canadian Office Inter Pares and is proposed to be made by co-agent workshops and sold to co-agents of rickshaw pullers. Despite the

fact that this improvement holds out any expectation of a more others conscious future for this generally exceedingly suitable innovation, up 'til now few are to be seen in the city. Each of the men and young men accelerating the rickshaws of Bangladesh is likewise visiting a portable display. There is a regular connection of craftsmanship and life in the roads that would be the envy of numerous a Western craftsman disappointed with providing food for a modest extent of the populace. For the rickshaw speaks to perhaps the peak of the Asian craftsmanship custom.

Every machine is beautifully attired from front to back in decorations, plastic blossoms in metal vases, deride carriage lights and mirrors. . Indeed, even model aero planes and shading TVs. The hood, which covers the travelers, has expounded applique rexine plans everywhere. The seat itself conveys a representational painting ensured by clear plastic. Between the back wheels is a sheet of tin-plate, frequently reused scrap from Britain. On these back plates is the work of the little band of the most talented craftsmen, executed in finish paint in brilliant, some would state pretentious, hues. The specialists who paint the seats and back plates are the tip top of the numerous whose job relies on upon the design of the rickshaw.

On these back plates is the work of the little band of the most talented craftsmen, executed in finish paint in brilliant, some would state pretentious, hues. The specialists who paint the seats and back plates are the tip top of the numerous whose job relies on upon the design of the rickshaw. Now and again the sketches have worked as political workmanship. After the Liberation War of 1971, portrayals of the freedom battle and of the monstrosities of the adversary alongside representations of Sheik Mujib, the principal President, were basic. After the banning of war pictures in 1972 and the progression of military overthrows in the 1980s direct political remark has been uncommon, yet its place has been taken by works of art utilizing creature symbolism to make subtler political focuses. Comic creatures ridicule the social request: rats, monkeys, jackals and tigers are indicated spruced up in court scenes, at the workplace, in a limousine, chasing or taking in their letters. Astonishing however ruthless wild fights supplant the prior war symbolism. Luxurious pictures from the Indian and Bangladeshi silver screen are an enduring top pick. Rickshaws including scenes from the most recent motion pictures can be in the city inside days of a film being discharged. Many component prevailing, firearm toting champions in Western garments, or sultry seductresses and their adversary partners. Both shock the predominant social code that ladies ought to be subservient, hidden and covered up. Incidentally, one explanation behind the notoriety of the rickshaw is that it is a private, and thusly isolated, type of transport.

The difference between the provincial and urban environment, in this still overwhelmingly horticultural society, gives a rich wellspring of subjects for the specialists. Among these original city tenants there is a well of wistfulness for the town. Rural town scenes are normal - the myth of a Golden Bengal of peace and bounty with full and solid creatures, yields and individuals. The lavish fertility of the Bangladesh wide open belies its destitution and social anxieties. The works of art speak to a fantasy of how it ought to be and a yearning to leave the messiness of the city. The fantasy of the provincial idyll is counterpointed by the fantasy without bounds city.

Cityscapes of high rises, flyovers, monorails, helicopters and rockets are an option dream to the swarmed avenues of Dhaka, in spite of the fact that the rickshaw is frequently resistant present in these pictures. The images of improvement are joined and adorned. For instance, the Kurmitola International Airport is depicted finished with Concorde taking off. Some improvement specialists have scrutinized the measure of cash spent on the embellishment of the rickshaw in respect to the lives of the pullers. Fundamentalists condemn the craftsmanship as un-Islamic. In spite of these weights, this lively and expressive work of art doubtlessly should get by to improve the way of life of the general population of Bangladesh.

Different models have been used for representing behavior of various traffics in homogeneous and heterogeneous traffic conditions under different specific situations (e.g. roadway geometric and operating condition, driver characteristics, vehicle characteristics etc.). Some of them are narrated as follows:

Lane changing models

The target lane (direction) model Gap acceptance model the lane (direction)-changing model The immediate lane (direction) change model

Acceleration models

Car following models General motors non-linear models (GM model) Collision avoidance models Psychophysical (action point) models □ General acceleration models

Other models

Sidelong moving models Longitudinal after models Cellular automata models the longitudinal progress demonstrate the sideways and horizontal progress show the way decision display Projective model 5.

3.2 Review of the Driving Behavior Models

The movement of a vehicle may be classified into two classes; lateral movement and longitudinal movement. For describing longitudinal movement of vehicles various acceleration models have been developed. Despite what might be expected, for parallel development various path changing models have been utilized.

3.2.1 Lane changing models

The lateral movement of vehicle is founded on some fundamental decisions of the driver including selection of target lane, finding necessary gaps and execution (lane changing). In order to delineate these basic maneuvers the lane-changing models have been developed.

3.2.1.1 Lane selection models

As lane or direction changing operation is the point of interest in delineating the lateral movement of vehicle on roads, it is of utmost importance to review the works on lane changing behavior. Path changing models have been proposed by Choudhury (2005) setting the exercises of target path choice and achieving adequate crevice or extension to accomplish the objective path. It has been found that lane changing may be either mandatory (MLC) or discretionary (DLC). For capturing both MLC and DLC situations a general model framework was developed by Ahmed et al (1996) and Ahmed (1999). Yang and Koutsopoulos (1996) executed in MITSIM a govern based path changing model in which path changing has been utilized as MLC and DLC that Toledo (2007) has said later tending to CORSIM.

A similar model was implemented by Hidas and Behbahanizadeh (1998) in the micro simulator SITRAS. In their model they have illustrated the concept of MLC and DLC. DLC has been suited in the situation where the adjacent lane has greater travel speed and queue advantage as well. On the other hand if a vehicle is in MLC situation he has to change lanes with the leading vehicle to remain cooperative. Depending on the aggressiveness of the driver an unlikely lane changing may occur. In viable circumstance when the subject vehicle takes after the main vehicle and the slacking vehicle takes after the subject vehicle, a hole is made permitting the subject vehicle to change its path.

Roberch (1976) built up a model of path changing conduct in two path motorways. A vehicle might be in both of the four stages relying upon its position (left path or right path) and activity working condition (free stream or obliged). To model moves between the states a stochastic Markov handle has been utilized. It has likewise been observed that path changing conduct in the right path and the left path are distinctive. In all the path changing models MLC and DLC circumstances have been emerged in the downstream development and path blockage relying upon the separation to the point where the path changing must be finished.

Target lane or direction choice is immediate to see but not a simple phenomenon to delineate, as there are a number of factors involved in making such a decision. Choudhury (2008) has marked the conspicuous factors such as lane attributes (queue lengths, average speeds, and queue discharge rates), inertia to stay in the current lane, proximity of a lane to the current lane of the driver, neighborhood variables (presence of other variables and their actions, relative position and speed of the subject vehicle with respect to neighboring vehicles), geometric elements of the roadway, driving style and capabilities etc. The utility of the lane has been the major concern here in selecting the target lane or direction.

2.2.1.2 Gap acknowledgment models

Various analysts have created gap acknowledgment show in their own specific manner as they have seen the circumstance. These models are utilized to speak to the execution of path change. Choudhury (2008) has presented lead crevice and slack hole terms to clarify the hole or gaps in the roadway working condition furthermore contrasted the holes and the basic hole, which is the base accessible hole for a driver to achieve the objective path (heading). The gap acknowledgment is just conceivable when the accessible hole surpasses the basic crevice.

Basic holes or gaps have been demonstrated as irregular factors by Toledo (2003) and Choudhury (2008). Hernan and Weiss (1961) expected an exponential conveyance. The gap acknowledgment is just conceivable when the accessible hole surpasses the basic crevice. Basic crevices have been demonstrated as arbitrary factors by Toledo (2003) and Choudhury (2008). Hernan and Weiss (1961) expected an exponential dispersion. Drew et al (1967) expected a lognormal appropriation. Later on a typical conveyance was expected by Miller (1972).

In the gap acceptance models Mahmassani and Sheffi (1981) introduced impatience functions. In this case critical gaps have been shown as a function of explanatory variables. The number of rejected gaps or waiting time has been found significant impact on gap acceptance behavior (Toledo, 2003). Hole acknowledgment parameters were assessed mutually with other 7 segments of model and were found that lead and slack crevices under MLC circumstances were lower than under DLC circumstances.

3.2.2 Acceleration models

Speeding up is a typical operation of day-by-day development of movement. The increasing speed that a driver applies relies on upon various elements including the driver to boost, street signs, markings and signs, the roadway condition, vehicle attributes, relative speed with the main vehicle and association with the encompassing vehicles. Speeding up models might be characterized into two noteworthy gatherings.

Car following models: whether the driver will apply acceleration or not depends on the characteristics of the leading car driver. General acceleration models: can describe car following behavior and even when car is not present as a leading vehicle, then this model is used to illustrate the following mechanism of the subject vehicle driver

3.2.2.1 Car following model

The idea of auto taking after was initially proposed by Reuschel (1950) and Pipes (1953). Auto taking after models depict the connection between neighboring vehicles in a similar path (Brackstone and McDonald, 1999). The subject vehicle takes after the pioneer (vehicle in front) and reacts to its activity. These models are the major parts of the microscopic vehicular movements modeling which provide the foundation for traffic simulation systems. In order to get profound notions about car following models, three characteristic models, named as General Motors non-linear models, the collision avoidance models and the psychophysical models may be reviewed.

3.2.2.1.1 General motors non-linear model (GM Model)

The General Motors non-linear models known as GM Models (Brackstone and Mc Donald, 1999) developed from a series of studies conducted at the General Motors research laboratories in Detroit in the late 1950s (Chandler et al., 1958; Gazis et al., 1959; Gazis et al., 1961). Specialists at the GM Research Laboratory presented the affectability jolt structure that is the reason for most autos taking after models to date (Toledo, 2003). As indicated by this system a driver responds to jolts from nature. The reaction of the driver is given $\text{Response (t)} = \text{sensitivity (t)} \times \text{stimulus (t-}\tau\text{)}$

Where, t is the season of perception and τ is the response time for drivers. The time interval between seeing, hearing, or feeling and the starting to do something in response to the stimulus of a traffic or highway situation are called „reaction time“. The psychological process constitutes four operations; perception, identification or intellection, emotion or judgment and volition or reaction (means execution of decision).

3.2.2.1.2 Collision avoidance model

The collision avoidance models assume that the following vehicle will maintain a safety distance to the vehicle in front and will select its speed to ensure the vehicle can stop safely to avoid a rear-end collision (Lee, 2007). Such models (e.g. Kometani and Sasaki, 1959; Gipps, 1981) are developed based on the equations of motion. This type of model has been criticized as the following vehicle can not react in time when the leading vehicle performs a sudden break or deceleration. To facilitate a clear conscious view of vehicular flow characteristics Gipps (1981) developed a model in which extra safety reaction time and safety headway margin were introduced. No calibration of parameters was required in his model. This model could mirror the genuine movement stream qualities when practical qualities were allotted to the parameters.

The upside of impact shirking model is that this model can depict longitudinal and parallel development of vehicle both after a couple of adjustments. Gunay (2007) tried to integrate the lateral offset of the following vehicle into the Gipps following model. This study was a pioneer to describe the two-dimensional movement of cars. This model can allow flexibility to alter kinematic properties as well.

The greatest challenge to the validity of collision avoidance model emerged when it was appeared that Newtonian mechanics could fail to illustrate a short headway. This suspicion arouses when Brackstone et al. (2002) found that the minimum desired following distance was far lower than believed when they investigated the parameters for the action point model. In fact, it is obvious that a driver should be vigilant while following a vehicle closely and the reaction time will be less than usual. A collision avoidance model can describe an extremely short headway if the driver expects a low deceleration difference to the preceding vehicle (Lee, 2007).

3.2.2.1.3 Psychophysical model

The psychophysical model, developed by Weidmann(1974) and Leutzbach(1988), assume that the drivers of the following vehicles follow the leaders even when the space headway is large and they fabricate a perception threshold to avoid any kind of collision. The concept was first brought up by Michaels (1963). A vehicle driver wants to drive to his desired speed in free flow condition. The perception threshold on a large scale influences the response of the driver. In fact, the term „perception threshold“ works in two mutually related and subsequent operations.

First of all, a driver will increase the speed until he realizes that the further increment will be venturesome enough to cause a rear-head collision. Then he will try to maintain the speed with the leading vehicle. It is not generally conceivable to keep up the equivalent space progress constantly. In the second case, when the former vehicle will be some long ways past the recognition limit or space progress will expand, a similar driver of the accompanying vehicle will attempt to quicken his vehicle.

Mechanisms are periodic termed as „following spiral“. As following and leading vehicles are totally relative to each other, there is no way to stop the cycle. Accordingly, the psychophysical model can delineate the wavering wonder saw in auto taking after investigations. The perceptual threshold was found from a number of acceleration and deceleration decisions made by the drivers. For probably being somewhat psychological, no rigorous framework for calibrating the model has been proposed yet.

3.2.2.2 General acceleration model

Gipps (1981) developed the first general acceleration model that applies to both car following and free flow conditions. The maximum applicable acceleration is based on two constraints: speed and headway. It is accepted that the speed may not surpass its wanted esteem and the base safe progress must be kept. The protected progress is the base separation that is required for the accompanying vehicle to keep away from an impact when the main vehicle diminishes its speed unexpectedly by applying crisis braking. Figuring are situated in the conditions of laws of movement. The vehicles are portrayed through the upper limits of increasing speed and deceleration values.

Benekohal and Treiterar (1988) built up a comparative model for the CARSIM reenactment apparatus. The speeding up is ascertained independently for five unique circumstances. Yang and Koutsopoulos (1996) built up a general quickening model and actualized it in MITSIM, a minute activity test system. The driver is doled out to one of three administrations in view of time progress: crisis, auto taking after and free-stream.

Zhang et al. (1998) actualized a multi-administration increasing speed display in MRS, an infinitesimal movement test system. They characterize a few distinctive driving administrations in light of space types of progress. The administrations are crisis, typical auto taking after, uncomfortable auto taking after and free stream. When the space headway is smaller than a pre-specified threshold value, it is termed to be emergency regime. The ordinary auto taking after model uses the non-straight GM display (Gazis et al. 1959).

Uncomfortable auto taking after is connected when the increasing speed computed by typical auto taking after is sure and the progress is sure in light of Pipes" definition (1953). For this situation the driver applies a typical deceleration rather than ordinary increasing speed. Typical increasing speeds and decelerations are additionally connected in free-stream administration trying to accomplish the craved speed. Ludmann et al. (1997) utilized comparable driving administrations as a part of the minute movement test system PELOPS.

All the models discussed above can be shown in brief by the following table. The factors considered by the authors are enlisted as well.

3.2.3 Other behavior models

The models mentioned above are somewhat universal in delineating the movement of vehicle in the traffic stream. For a closer look deep into some specific vehicles (e.g. motorcycle) supplementary approaches have been performed and developed by a number of transport modelers. The following models also try to describe the behavior of driver in heterogeneous traffic condition.

3.2.3.1 the longitudinal headway model

The longitudinal headway may be defined as the following distance in the situation that the subject vehicle is following directly behind a preceding vehicle. This model was developed by Lee (2007) for delineating the longitudinal movement of motorcycles.

In motorcycle context, two scenarios; the minimum following distance without swerving maneuvers and with swerving maneuvers have been discussed as swerving is a common operation in longitudinal movement of motorcycles. For rickshaw, though swerving is not prevalent, it is noticed in some situations while moving longitudinally. When swerving is not performed, the rickshaws are more likely to decelerate or reduce speed to avoid collision as the motorcycle does. This technique is mostly appropriate for path based movement and can be utilized to decide the base after separation for security reason.

When a motorcycle performs swerving, it tends to dodge away from the line to avoid rear end collision. For rickshaws, the same scenario is viewed occasionally basically when the vehicle is in a hurry to reach to the destination. The extent of this action is quite less than that of rickshaw as rickshaw requires more space and the pace of rickshaw is low as well. When the rickshaw swerves and follows another vehicle, it has to maintain a safety distance with the leading vehicle to avoid rear end collision.

It has been found that the minimum following distance is a function of the speeds, braking decelerations of the relevant vehicles and the reaction time of the motorcyclists (Lee, 2007). The findings may

also be applicable for rickshaws as all the contributing factors are logical enough to describe the situation and perception of the safety margin.

3.2.3.2 The Angled and Parallel Progress Display

The slanted progress might be characterized as the security remove that a motorcyclist keeps up when taking after another vehicle diagonally; taking after at the back left or back right end of the former vehicle (Lee, 2007). The parallel progress, then again is the wellbeing separation that a driver keeps up when surpassing the former vehicle, or taking after vehicle along the side. Oblique headway is common in the movement of the motorcycles. Lee (2007) has also found that for motorcycle the development of equations to delineate the oblique headway is complicated as merely avoiding a rear end collision is not the only concern of the motorcyclists. Some sidelong developments and imperceptibly mental components are additionally required in this wonder. Therefore, he suggested the warrants of regression model to describe the oblique headway. In case of lateral headway, the following angle 90° . So the headway can be represented in terms of the speed difference or the relative speed of the two vehicles. For motorcycle both oblique and lateral headway model has been accepted and developed by Lee (2007). For rickshaw, the lateral headway is common, but maintaining oblique headway is not noticed too often.

3.2.3.3 The SITRAS model

The Simulation of Intelligent TRAnsport System (SITRAS), a gigantic multi-specialist recreation framework in which driver-vehicle items are demonstrated as self-ruling operators, was presented by Hidas (2002) in displaying path changing and converging in minute activity reproduction.

This is a minuscule time-interim redesign recreation model being created at the University of New South Wales since 1995. The model is actualized in a question arranged structure under the Microsoft Windows working framework on IBM-good PCs. The model goes for giving a general assessment device to Intelligent Transport System (ITS) applications, for example, clog and occurrence administration, and open transport need and element course direction. Hidas (2002) used SITRAS model in for simulation of lane changing behavior of vehicles under some assumptions.

First of all, the driver of a vehicle does not force another vehicle under uncongested condition to reach their destination lane. The second assumption is taken for congested traffic condition. It has been speculated that almost all the drivers force other vehicles while moving to the destination lane. The connections between drivers required in such a move require complex behavioral basic leadership handle, which can be demonstrated via Autonomous Agent systems (Hidas, 2002). No information dealing with „forced“ or „co-operative“ lane changing situations was found in the literature. In this manner, by growing the abilities of past models, a model was produced and actualized in SITRAS which can deal with path changing under congested (and episode influenced) movement conditions.

3.3 Review of the Models for Heterogeneous Traffic Conditions

A number of studies have been conducted for heterogeneous traffic condition, particularly involving motorcycles. Most of these studies have highlighted on the interaction between motorcycles and other vehicles in heterogeneous traffic stream. Lawrence has made an attempt and Chiung-Wen (2003) to develop a particular-hoping model with fixed moving rules to describe motorcycle's moving behavior in mid blocks of heterogeneous traffic flows. Chan and Yuh-Ting (2004) expected that the development of a motorcycle was a two-dimensional development, in which the longitudinal one makes the bikes go ahead while the sidelong one makes it get suitable positions in its direction.

In the same line, Nguyen (2004) introduced a concept of personal space to explain the movement behavior of the motorcycles under the influence of surrounding motorcycles. This idea was proposed for both signalized and non-signalized convergences. Chu et al. (2005a, 2005b, 2006) investigated a few particular practices of the bike activity including surpassing and matched riding practices at mid-squares, deceleration conduct at signalized crossing points and the speed-stream progress connections of bike traffics.

Lack of understanding while negotiating at intersections, non-cooperative behaviors of the drivers, both motorcycle and car or bus drivers are greatly responsible for significant reduction in speed and high risk of accidents. Deep understanding of the interactions will be useful for introducing effective policies or measures to enhance heterogeneous traffic performance (Hsu et al., 2003).

In the capital of Vietnam (Hanoi), at two-staged crossing points, when the flag light turns golden (or green) motorcycles and autos from bearings of the fundamental street begin to experience (or straight) and to turn left in gatherings, not in detachments. The conflict between the two groups can be explained using the two-player non-cooperative game, in which each player or group chooses one strategy to move from their set of strategies. The aftermath of the interaction is a combination of the strategies chosen by the two groups. The decision made one group may be dependent on the strategy selected by another group.

Oketch (2000, unpublished work) has proposed a new modeling approach for heterogeneous-traffic streams with non-motorized vehicles. This model covers different vehicle types, including non-motorized ones, and allows for some special behaviors such as seepage to front of queues by two-wheeled vehicles and simultaneous use of two-lanes. In addition to normal car-following rules, the model incorporates lateral movement with a gradual lane change maneuver, the decisions of which are governed by fuzzy logic rules. In this model, a microscopic traffic simulation approach was adopted in the study.

The simulation model was comprised of several features such as, seepage of motorcycles and bicycles in front of queues, lateral movement model, identification of options and evaluation of options by using fuzzy logic. Matasuhashi et al. (2005) has broken down picture handling of motorcycle situated heterogeneous movement stream in Vietnam. This examination was performed before the execution of transport arrangement and changes in general society transport framework. This study was helped by reproduction strategy, which was utilized to assess the effects of a conceivable future relocation from bike to private autos or to people in general transport framework. "VISSIM" 3.7 was utilized to play out the reenactment in this study. Different parameters were utilized as a part of the reenactment; for example, organize parameter (number of paths, path width), activity parameter (movement volume, arrangement of activity), vehicle parameter (coveted speed), and driving conduct parameter (path change, least progress, look-ahead separation, added substance a portion of wanted security, overwhelm on same path).

Zhang et al. (2007) used cellular automata for modeling heterogeneous traffic flow at crosswalks in micro-simulations. This approach focused on the pedestrian characteristics such as proportion of pedestrians violating traffic rules and regulations, the grouped effect and expected waiting time of pedestrians.

Nagel and Schreckenberg (1992) proposed a one-dimensional cellular automata model to simulate traffic flow on freeway, providing the basic principles for more complex surroundings such as city traffic flow. Improvements have been made to this model to adapt it to more realistic circumstances, including the slow-to-start rule and the extension from single lane to multi-lane models.

Blue et al. (1997) proposed a pedestrian movement model for large-scale open areas. Muramastu et al. (1999) developed a pedestrian movement model based on stochastic process. Blue and Adler (2000) then developed a four-directional pedestrian cross-walk model. A year later Blue and Adler (2001) proposed a bi-directional pedestrian cross-walk model.

Hossain and McDonald (1998) developed a model to demonstrate the effect of banning non-motorized traffic in heterogeneous traffic conditions from urban corridors of some developing cities. The model revealed that in Dhaka city of Bangladesh, such banishment could increase the passenger carrying capacity of the roads up to 300% for the same travel time. It could also reduce corridor travel time by around 30%.

IV. Figures And Tables

Summary of study conducted by different Authors

Model	Methodology	Factors affecting decision making	Study
Lane changing model	Capturing mandatory(MLC) and discretionary (DLC) situations ; introduction of CORSIM	Vehicle type (heavy vehicle or not), speed (potential speed), headway, traffic density, nearside or offside, presence of heavy vehicles regulations, distance (or time) to the intended turn, space/scope	Roberch (1976); Ahmed et al (1996); Yang and Koutsopoulos (1996); Hidas and Behbahanzadeh (1998); Ahmed (1999); Choudhury (2005); Choudhury (2008)
Gap acceptance model	Assumption of exponential distribution of critical gaps, introduction of impatience functions, comparing the gaps with critical gaps	Lead gap, lag gap, relative speed, presence of heavy vehicles	Hernan and Weiss (1961); Drew et al (1967) Miller (1972); Mahmassani and Sheffi (1981); Toledo (2003); Choudhury (2008)
Car following model (GM model, collision avoidance model and psychophysical model)	Introduction of sensitivity-stimulus framework, fabrication of perception threshold	Relative velocity, regulations, driver psychology (e.g. tailgating behavior), headway (time or speed), reaction time of the following vehicle	Reuschel (1950); Pipes (1953); Chandler et al. (1958); Gazis et al. (1959); Komatani and Sasaki (1959); Gazis et al. (1961); Michaels (1963); Weidmann(1974); Gipps (1981); Leutzbach(1988); Brackstone and McDonald (1999); Brackstone and McDonald(2002); Toledo (2003); Lee (2007); Gunay (2007)

Model	Methodology	Factors affecting decision making	Study
Longitudinal headway model	Consideration of swerving and non-swerving situations	Longitudinal headway, vehicle maneuver technique (swerving or not)	Lee (2007)
Oblique and lateral headway model	Regression analysis for the delineation of oblique headway	Oblique headway (vehicle following at rear left or rear right end creating an angle),lateral headway (vehicle following or overtaking in parallel), longitudinal gap, lateral gap, speed difference, speed of the following vehicle	Lee (2007)
SITRAS model (for lane changing)	It depends on the purpose and certain aspect of vehicle movement (here lane changing behavior)	Factors affecting lane changing behavior	Hidas (2002)
General acceleration model	Considering speed and headway to be the prime determinant in case of applying maximum acceleration	Driving regimes based on time headway and space headway (e.g. emergency, car following, free flow)	Pipe (1953); Gazis et al. (1959); Gipps (1981); Benekohal and Treiterar (1988); Yang and Koutsopoulos (1996); Ludmann et al. (1997); Zhang et al. (1998)

V. Conclusion

The reason for this proposition was to research the significance findings of the University Putra Malaysia person on foot environment, in view of the undergrad and graduate individuals' sentiments. Moreover, this proposition researched the possibilities and potential issues, which urge and demoralize individuals to rickshaw. As such, the destinations of this review were to assess the present state of urban areas person on foot environment and inspect urban communities passerby environment physical elements through a survey to offer proposals and recommendations to advance its walker surroundings.

This review was a cross-sectional review, and the information was gathered between 12 June 2014 and 19 June 2014. Respondents were urban areas individuals including a wide range of instructive levels. Altogether 378 of the polls were returned which confirm 88% of respondents' rate. In view of urban communities 27,538 undergrad and graduate understudy populace, Krejcie and Morgan table (Krejcie and Morgan, 1970) justified the example size of 378 respondents.

In terms of demographics, the findings illustrate that a greater number of females participated in the questionnaire compared to males (59% and 41% respectively). More than half of the respondents were between the 18 to 25 age group. Additionally, in terms of educational level, a majority of the survey respondents were completing their Bachelor's degree (47%).

The findings demonstrated that mostly people prefer to rely on their own car and shuttle bus as their first mode of transportation, corresponding to the fact that rickshaw as a preferred first mode of transport was not popular (15%). However, for the second mode of transportation, results showed different proportions with about half of the respondents suggesting that they would rickshaw if their preferred first mode of transportation were not being available. Approximately one third of the people mentioned that they usually rickshaw for about 5 to 10 minutes per day (it refers to the days they spent on the campus); while 26% responded that they do rickshaw for more than 20 minutes per day, indicating that rickshaw time is more than what was expected if not perfect. Majority of the rickshaw destinations were directed towards lecture halls, cafés and bank. Although over 20% of the respondents stated that they rickshaw for health and recreation, they were not the main reasons for rickshaw in the campus.

An urban area has major grounds with a zone of 1108.103 hectares just for its fundamental grounds situated in Serdang. The results illustrated that zone B had the highest popularity among the pedestrians, while the least popular zones were the zones where there were no special activity and mostly covered by green spaces and tress. Consequently, availability of activities was the most encouraging factor for the cities pedestrians.

The other objective of this research is to evaluate the perceived importance of the cities pedestrian environment physical environment factors by surveying people's perspectives. People were more concerned about the safety of the environment compared to the other factors. They pointed out that adequate lighting has not been installed along the pedestrian paths and in some areas of the pedestrian continuous network darkness is fearful. This awareness was more significant for females in comparison to the results obtained for males (64% of females said lighting is extremely important compared to 60% for males).

Furthermore, lighting and CCTV have considerable correlation, which means a combination of these two elements can significantly improve the perceived personal safety of the pedestrians. Another major outcome was the awareness about the crossing aids. Many comments have been written regarding the traffic safety challenges in the campus particularly when people want to cross the streets. The comments mostly pinpointed to the high speed of the passing traffic along with the absences of traffic lights.

Examination of the utilitarian things uncovered that availability and network are the most imperative components alongside the high relationship coming about among different things. Individuals exceedingly considered access to the resources, shops and different exercises in urban communities. Additionally, in a few remarks it can be seen that respondents are proposing that a few alternate ways ought to exist just for walkers to achieve their goal in a brief span and length; maybe passerby systems ought not take after just the lanes. In like manner, productivity of the urban community's person on foot environment is for the most part subject to the availability and network to the exercises.

When the survey asked about the perceived importance of the facilities, canopy and bus stop shelter were the most important facilities from the users' perspectives, which incidentally had the highest correlation as well. Hence, protecting pedestrians from the harsh weather could be the most important factor to be provided in cities in terms of the facilities. Moreover, according to the responses, a majority of the people mentioned that canopies are missing and hence during heavy rain and sun rickshaw is almost impossible.

When it reached to do aesthetics analysis, the result showed that respondents were not feeling critically about the visual elements. Tree as an aesthetic item has been considered as an important item compare to other aesthetic items. The reason behind this is because it can aid in providing shelter and shade during the rainy and sunny hours. Indeed, among all items, which were ranked, graffiti and mural walls obtained the lowest level of perceived importance. This indicates that for a university pedestrian environment, either drawing by spray (graffiti) or painting an artistic photo (mural wall) seems not to be popular or interesting among the people.

In the next section of the survey, current condition of cities pedestrian environment through the four main factors was questioned. Overall the current condition is on an average level; however, facilities obtained the lowest mean value, which immediately fell into the poor condition category. Indeed, facilities available on the rickshaw of cities are significantly improper. For instance, bus stops are not in a proper condition and there is no shelter available even in the high popular routes. On the other hand, aesthetics received the highest mean value, which indicate that the current condition of the visual aspects are better than other factors, although they still are sorted as average level.

When it comes to ask about the future, despite the low proportion of rickshaw as the first transportation mode, people responded that they were willing to rickshaw or increase their rickshaw time in case the quality of the pedestrian environments improves. Over 80% of the respondents said they would be willing to rickshaw if proper facility, safety and other mentioned factors are provided and improved. This means that despite the existence of the tropical climate which speculate rickshaw in a hot and humid weather is difficult, the survey showed by providing facilities and other pointed factors it is possible to increase the thermal comfort and encourage pedestrian activities.

To sum up, safety and especially lighting is the most important factor for the cities people. Additionally, people are concerned about the traffic safety and feel drivers drive beyond the speed limit. As a result, the implementation of a functional pedestrian infrastructure, accessibility for the disabled people, shortcuts and pavement maintenance must be a priority. In comparison, visual aspects seem to be perceived by people as an acceptable condition, and hence in this case landscaping should be more of a priority and importance than the artistic elements. However, trees obtained high mean value, which in turn signifies the ability of providing shelter as well as greenery. Similarly, canopy and bus stop shelter obtained the highest mean value among other facility items. This shows absence of shelter is the most challenging issue of cities pedestrian environment. Finally, a majority of the people indicated a willingness to increase the amount of their rickshaw in the only case of pedestrian environment quality improvements.

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