

A fundamental study of psychological behaviour of customer psychology applicable to financial and human resources management - an Analytical Approach

S. Christina Sheela^{1,*}, S Sriranjani Mokshagundam^{2,a}, S. Malini^{2,b,*}, Rajani H Pillai^{3,a},
Jalaja Enamala^{3,b,*}, Prasanta Biswas^{4,*}

¹Associate Professor, Department of Management, Gnanam School of Business, Chennai - Affiliated to Anna University, India (Email: mbasheela@gmail.com).

^{1, 2,a}Professor, Department of Management, BGS B-School, Bangalore - Affiliated to Bangalore

University, India (email: mokshagundam89@gmail.com).

^{2,b}Visiting Faculty and Superintendent, Centre for Distance Education, Anna University, Tamilnadu, India (Email: maliniamudhan@gmail.com).

^{3,a}Associate Professor, School of Commerce, Mount Carmel College, Autonomous, Bengaluru, India (Email: rajani.h.pillai@mccblr.edu.in).

^{3,b}Professor, Department of Management, Noble PG College, Hyderabad - Affiliated to Osmania University, India (Email: jalahae@gmail.com).

⁴EMBA Passout, Great Lakes Institute Of Management, Gurugram, India (Email: hpp_2024@yahoo.com).

*Corresponding Author.

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Abstract

This study is about bringing in research pursuits in finding attainment “level” of different stages of behavior continuum, in cognitive psychology or consumer marketing behavior. The study is theoretical and seeking to academic interests. Attainment of stage in the continuum, in the methodological study, has been described by two inclusions of research interests and they are interaction and involvement. With these two in mind, modeling of continuum building has been explained by a mathematical basis, leading to determine the continuum modeling. The study could show a trend into further better research. For its application, it has although sighted to marketing (consumer marketing) field in order to attain several pursuits like policy making in a system integration facility, cutting-edge outcomes, future growth anticipation, competitiveness, etc. but is to be equally applicable for financial and various sectors of human resources management.

1.1 Keywords:

attitude attainment modeling, behavior continuum, behavior continuum matrix, consumer psychology, financial psychology, human resources competitiveness, organizational financing, system integration.

INTRODUCTION

“Better happiness causes a better living and enthusiasm” - this should be a theme behind every behavioral pursuit, wherein underline (of word ‘better’) does indicate its literal meaning by more screening or bias avoidance or iteration.

There is conflict of affect and cognition in ensuing a level of happiness in continuum development of behavior or attitude^[1]. In a societal sphere, all entities, such as human, environment and economy, are susceptible to continuous upgradation of environmental degradation^[2]. It is an obvious effort that any business ‘negotiation’ is not out of a society or social causes and a behavioral set-up gets an automatic (spontaneous!) subjection of persuasion and perception change. Perception gives the way out to look out into a particularity^[3] and it is one of the components of ‘human’ behavior. So, a good business can create a good society while a good society has the ability to maintain a better happiness among all^{[1], [2]}. A ‘good’ perception in business, be a marketer or consumer, should thereby groove up lesser level into the conflict between an affect and cognition.

There are various stages in continuum of attitude or behavior. The stages are perception, feeling, belief, value, etc. Attitude is also a stage that occurs before behavior as a stage. Subjectively, attitude is such a stage that is the culmination or a resultant one of all previous stages. Obviously, it is a higher degree stage than the earlier ones^[4].

In a business psychology, it is always to be thought of which stage or stages should be becoming more endangered by various factors or aspects for a given socio-environment scenario. There are certain things that may come in the path of attitude or behavior attainment by the continuum^{[5], [6], [7]}. These are religions, emotions, conspiracies, anxiety, depression, etc^{[8], [9], [10]}. Also, there may exhibit an alteration in the stages to happen in a typical continuum scenario. Although, there is a conventional fundamental for it this is relevant to the study and supportive to research interest^[4]. For an example, a business product, say, product type ‘x’ may cause exhibit ‘feeling’ as a stage prior to ‘perception’ whereas product type ‘y’ may have ‘perception’ as it’s the prior one. So, attainment of stages is completely such that it can’t be on a same regime always of happening irrespective of business types and nature.

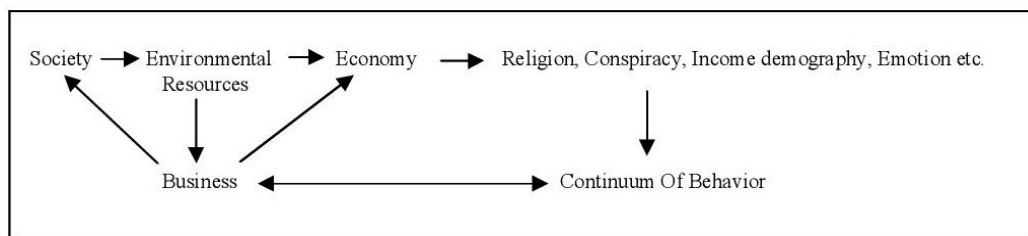


Figure 1: The Chain Link

Emotion regulation combined with various psychological initiations like conspiracy theory and social factor like religion, etc. might be a set object to be thought of in upcoming ‘social’ businesses^{[11], [12]}.

Evidently, humans do learn and adopt strategies in changing business field^[13]. So, gaining a stage (of behavior continuum) among consumers has become a challenging pursuit now-a-days^[14].

A business needs a path which is usual and fundamental in which a business standard leaves a behavioral implication which also takes as a responsible on the standard (please see Figure 1). This knowledge as presented by Figure 1 which is self-expressive indeed requires to be kept always in any business research and its implementation. This as a chain link and its nature in a country or society is vital.

In this research paper, a fundamental insight is described. The insight is about involvement analysis on various stages in behavior continuum of human. The analysis is theoretically explained and the paper is propounded as a theoretical interest of research pursuit. The theoretical research of insight would be able to explain how the various stages would form and could be formed.

It is an essential responsibility of learning to have a basis of incorporation. So, those aspects are hereby discussed as introduction so that approach to make the study gets always well equipped to application and validation regards.

Figure 1 has already made the initiation of incorporation briefly. In any activity, be it a business or so, humans always have got the prime place of getting analyzed and having a center point of attraction. Information processing system of human is to be so smart to be proclaimed as habitable or habitation-able so far as its potential ability to changes and incorporations in accordance does exist^[15]. This smartness may be due to survival in planetary 'terrestrial' system of living.

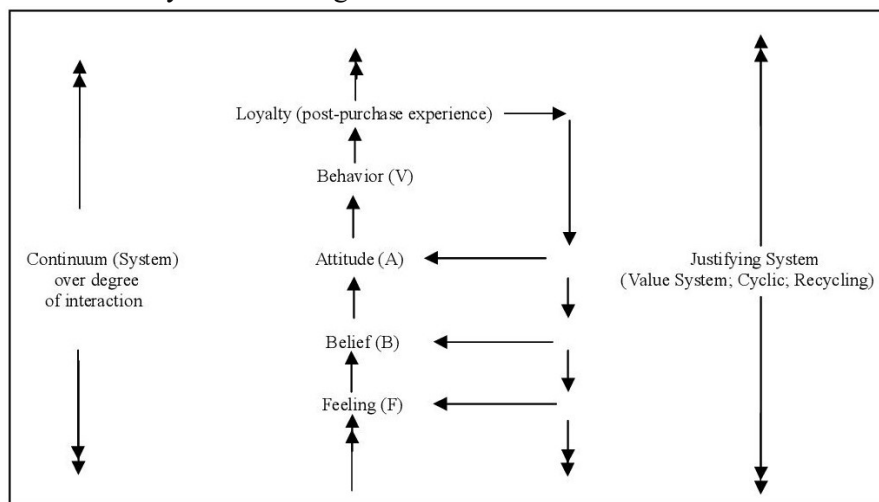


Figure 2: Behavior Continuum (also to be methodological)

Humans have multi-dimensions of aspects like perception, beliefs, conspiracy, emotions, etc. which lead to variety in behaviors and attitudes^[16]. Nature of humans once studied better and transparently should help to a business of how to proceed on^[17]. Also, negativity in the information processing doesn't always render as a bad one to objective fulfillment^{[6], [9], [13]}. All these should lead us though to find out human psychotherapy since ancient times. In order to have human's control on humans better and more better, clear demarcations with complete identifications are, psychologically, essential utmost^{[18], [19]}.

Table 1: Three common players in business and/or marketing

| Continuum | Name of players | What is it? | Strategy | Perspective Example |
|------------------------------------|----------------------|--|--|--|
| Lower to Higher Stage of continuum | Proposition | Business objective is proposed to prospects. | Marketing strategy (7P, 7C, 7S etc.) | Selling or pursuing object (product, service). |
| | Promotion (Branding) | Connection between prospect and proposition. | Media strategy, communication, etc. | Advertising (digital and print) |
| | Prospect | Consumer (individual) | 'Target' market/consumer strategy (Consumer Behavior Study and Strategy) | Stages of behavior continuum (belief, feeling, etc.) |

^{7P}:4P(for product)+3P(for service);^{7C}: clarity, correctness, conciseness, courtesy, concreteness, consideration and completeness; ^{7S} (McKinsey): strategy; structure; systems; shared values; skills; style and staff.

Usually, various stages of psychological continuum, often known as behavior continuum, get formation of themselves by various attributions of psychology or psychological factors like anxiety, depression, fatigue, prolonged trust, recognizing agenda etc. For a given subjection, emotion has always been a tremendous factor by significance^[19]. Like emotion, conspiracy has the role to control cognitive emergence^{[6], [16]}. Also, subject of emotion has direct or indirect role to control cognitive ability in humans^[1]. Habitual practices are, however, competitor to emotion sometimes^{[10], [13]}. There should always be smart-way of psychological negotiations^{[12], [17], [20]}. So, it is a matter of fact that in a given subjection, gaining of stages of psychological continuum must follow and experience several psychological attributes, from externality to internal within.

Figure 2 shows a layout of stages in a psychological process for human. Essentially, there are various stages in a psychological continuum, a particular sequence of which may vary from human to humans. One of such instances is shown by Figure 1. Two stages before the attainment of stage 'attitude' are taken for consideration of discussion; these are belief and feeling. Subjectively, there must be several other stages prior to attitude as the stage. Also, beyond attitude there remains only the stage known as 'behavior' which is considered as last stage of behavior continuum. So, likewise, a psychological continuum may go a long path which is even unknown till now, in the study of psychological science.

Figure 2 shows such a path for consumer marketing, a subjective field of study for the discussion. This research paper has propounded that for consumer marketing stage 'loyalty' could be the stage reckoning as a higher level of behavior only. So, on the upside the continuum is unending as the downside has. Figure 2 has tried this understanding of knowledge by showing double-arrow. Moreover, attitude as a stage is considered as a benchmark stage to distinguish between a value system and justifying one. This research paper thinks that a value does occur once attitude is formed and moves upward in the continuum. There could be a cyclic operation in the value-system process, but value does fall by its definition when it goes below the level of attitude stage.

Self-expressive meaning of term 'justifying' is all to define of what it is and it lies to so long as stages lower than attitude do keep forming, again and again, in cycle or so; lower stages do signify inferior quality and higher stages as good quality. So, each system with its cycle in operation does form and comprise as a component of the continuum (please see Figure 1). On adding the two systems, entire continuum or a complete continuum can be obtained.

It is quite now clear to see the inter-connection and its existence in between Figure 1 and Figure 2. For usual understanding of the study Table 1 should be given of what the continuum

is said to act on in an application field of consumer marketing.

Justifying system by quality should bear accountability on the quality of “value” system as shown in Figure 2. Also, frequency of cycles in each system should be dependent upon degree of quality of each stage and various psychological factors as explained earlier. This study’s concern is about the quality of the stages in the system. Background target philosophy of this research study is –

- Attributes quality is stage quality.
- Stage quality is system quality.
- System quality is continuum quality.

All these can be seen from Figure 2 which should be respective to Figure 1, as applicable.

A consumer marketing programme does always initiate various objective attributes as considerate to its budget and all. It seeks immense scopes to gain competitive edges in the market and business. It does enjoy, by applying numerous strategies to appease consumers through attainment of the stages in several ‘possible’ ways. And, this enhancement of several possible ways must be followed by our earlier discussions of various psychological factors and such. Venturing over various continuum-stages is quite creative one, after all.

What is “stage” in continuum?

Term “stage” is to be defined as a time-bound retention or residence as functional to a given set of attributing variables, acting upon human and human’s information processing. Number of stages should form a continuum. For behavior in cognitive psychology, it is behavior continuum. Figure 2 shows such a

continuum of psychological information processing where some stages (or some portions out of maximum, entirety) are given alongwith the systems explained earlier.

It is required to be mentioned that sequence of stages may vary except attitude and behavior as the stage as shown by Figure 2, that means a stage called as “feeling” that may or may not occur prior to another stage “belief” and also there may be another number of stages (like, perception, etc.) in between feeling and belief as shown. There is one stage conventional and fundamental always to be between attitude and behavior called as behavior intention (B.I).

Each stage has its own definition of its existence, by literature meaning of itself. One stage should never happen unless its previous stage is complete. Conversely, one stage is a consequent of its earlier stage, to the meaning of attitude or behavior. There should be a continuous process of repetitive nature in between the stages, in sequence of stage formation. So, Fourier series application of mathematics may be thought of to analyze this. Also, tools like PERT, CPM, Bar Chart, Scheduling or Optimization etc. may be found to be useful in analyzing and determining the continuum, to chalk out a critical path in a given chain link in scenario of continuum behavior discussion^{[21], [22]}. Be it for a stage, in its formation, of instantaneous nature or of a given time duration, applications like Fourier function, PERT etc may provide a way-out of analysis and utility. However, subjective matter of study is to bring forth the theoretical (analytical) explanation of happening or occurrence of each stage in

behavior continuum (as shown in Figure 2), with help of mathematical equation or formulation. There are two works or actions or efforts considered (assumed) to be happening in formation of each stage of behavior continuum and these are – involvement (denoted by L) and interaction (denoted by Z). Term “L” should always indicate operation jointly taken forward by both L and Z together, subjective to methodologically otherwise implications.

[Note: Any work, L or Z, can happen suitably in an interchangeable way and it doesn't relate to term LZ as it is sequentially written at. So, whatever be the sequential way of action (out of L and Z), that may also be considered, the operation has been written in the study as LZ simply].

To formulate or explain LZ of behavioral stage is the basic and background theme of this present study.

Fundamentals of Methodology

This paper of research interest has discussed in a methodological way the following basics -

- Stage formation (result of below twos).
- Stage involvement (at-stage function).
- Stage interaction (on-stage function; inter-relationship between two stages in subsequent).

The study is applicable to any stage in the continuum (irrespective of the system as shown in Figure 2) and this makes the study a pathway of breakthrough solution, to any field of the research. The study has considered two stages for its entire explanations which are feeling (to be denoted by F) and belief (to be denoted by B) where subjective field of study has been imagined on consumer marketing.

Scopes of the Research

Above fundamentals have been discovered and described by the study's methodology, for continuum stages. The study for its exemplary mode of explanation has taken B and F as the two stages of the explanation for all its findings.

This study is completely theoretical. A basic imagination has been applied on the character of the fundamental (given above) by possibilities. Interesting outcomes get delivered by such imagination once characterization is done on the field perspective. Various kinetics of the stages have been found out which are considered in the study as the new one. Lastly, modeling of the twos (B and F) on the fundamental has been determined which has the compatibility to use. It is again mentioned here that explanations as determined for B and F should be equally applicable to any other stages in the continuum.

Application of the Research

Following fields of concern would be benefitted from the study as well -

- Consumer marketing.
- Psychology (cognitive).
- Social.
- Miscellaneous (crime investigation department, mental treatment center, child healthcare, civic study, etc.).

Applications used to research

This is in addition to future scopes of the study as well in respect of research findings of the present study. And, it could be kind of the development of software through real-time (attitude) research by using the study's finding.

Conjugation Concept (Methodological)

A well regression between any two stages (intermediate) indicates a well arrangement of variables of the stages. There could however be a variety in the regression into making a stage definition. Variety could be as poor or good. In the study, regression is functional "mathematically" to "physical" happening of LZ as operation. There should be various factors governing to a good system of LZ or regression and those are -

- Sustainability
- Resilience
- Effectiveness
- Efficacy
- Efficiency
- Competitive edges
- Miscellaneous (socio-demographics, etc.)

With all these factors, an attainment of a stage concerned is to be an accumulation of all previous stages. For example, B is to be of F completely and all prior to stage F. In fact, a stage is to be always comprising of higher magnitude of variables, LZ operation, regression, etc than all previous stages to it. Degree of culmination or accumulation of a stage into its "succeeding" stage is hereby termed as *conjugation*.

There should be three kinds of conjugation or conjugate -

- Full conjugate
- Part conjugate
- Separate conjugate

Conjugation as a term is an engulfment of one stage into another one of succeeding interest. It definitely holds true to be proclaimed as consisting of LZ, regression, various factors, etc. and all as detailed above. This is another research aspect included and described in the study as a research scope of finding.

So, conjugation is a property to describe at what status a stage has become transformed into its succeeding stage. The status should be factorial of degree or rate at which the transformation takes place in addition to above description of LZ, regression, etc. Followings would be the objectives of the present study entirely -

- To determine relational features and characters of stages and in between stages of consumer psychology and behavior.
- To evaluate the time of recuperation or re-growth of a relational stage of behavior gaining since a media communication of proposition into attitude determination is started.
- To find out possible ways to recuperate a down growth or low gain and such in behavioral stages.
- To determine a software modeling of attitude psychology, of cognitive interest.

Literature Reviews

The research study targets to find out the cohesive character lying between behavioral stages in a modeling way and followings are the related literature reviews in connection with the study –**Perspective “neuro-regulation” - Dolan Study (2002)^[5]**:

It is the study which emphasized neuroscience and its advancement to know emotion and its regulation to feeling and behavior. Emotion has its several sets of variables to be called for as responsible ones that include perception, mnemonic, experiences, etc. The study has little said about correlation between emotion and affect, resulting to a call for of the need of self-identity and social competence. The study has entirely established a basic information source of neuro-regulation in forming attitude and behavior based on emotion and feeling.

Perspective “religion” - Abdulla Study (2018)^[7]:

This study has opened up a different but useful aspect on “demographic” scenario which is not beyond making human attitude or behavior. The aspect is whether culture or religion is better to make a positive attitude or rather, which between culture and religion is most impactful on attitude domination. The study obtained that though culture is often seen as a subject of human right and its progressive nature by civilization, attitude is dominated by religion which also dominates culture in an attitude making. So, culture is region centric and it often needs hands on human rights involvement to be a corrected religion than culture – this is quite obtrusive to the freedom of culture, to attitude making, to a place of diverse civilizations or religions.

Perspective “virtue of human nature” - Sydenham, Beardwood and Rimes Study (2017)^[18]:

Belief is a positive state of existence by virtue of human nature and it’s established by this paper of research interest. Some associated variables have been taken into consideration in establishing the study’s outcome – self-compassion, social support-seeking, emotional avoidance, positive/ negative emotional acceptability and etc. These variables when experimented by cross-sectional questionnaire study (via online survey) with 451 adults show interesting outcomes of the study. Unacceptability of negative emotions has been kept to similar definition of interest to finding as to anxiety, depression and fatigue. Mediation levels (higher/lower) are found to be responsible to exhibit the association of variables to belief. Rigidity or firmness on a belief is often resistive to change the belief and in doing that the study suggests the belief-making to be with an openness of mind, that is, to emotions.

Perspective “emotion and its regulation” - Ford and Gross Study (2019)^[23]:

This study has declared that it is a sparse matter to find a solid base of fundamental how emotion gets regulated in human and whether emotion’s responsible enough to define its corresponding belief. The study says that downstream outcome of an emotion may define a set of emotions to be belief-causing. In that, a term “emotion belief” could be suitable. All sets of emotions are complicated to be said so, of belief-causing. On two fundamental beliefs the study has worked to arrive to be conclusive one and these are whether emotions are good/bad and controllable/uncontrollable. A methodological framework has been described

in it which shows its finding by considering emotions as belief-centric. From this, it concludes that there should be regulation 'process' of an emotion to get through and become a solid object to belief and it eventually varies by humans and falls under research interest, yet to be discovered out, till now.

Perspective “cognition” and “affect” - Bodur, Brinberg and Coupey Study (2016)^[24]:

This study is quite an interesting one and may become a solution maker to many problems of emotion-related researches. It has followed a methodological model which should be close attitude-making.

Affect, taken as non-cognitive factor to attitude making, has been analyzed in finding its interaction with cognitive – it is described by treating as a separate attitude construct. By doing such attitude construct by the study's methodology, the study obtained a confirmatory base to proclaim a better consistency to be prevailing over in attitude making by affective based than by cognitive based. As per study, many practical instances prove this “affect” domination through “cognitive” mediation, directly or indirectly, to be effective and giving good realistic results. Affect is considered as emotion “presenter” indeed.

Perspective “emotional self-reporting” - Robinson and Clore Study (2002)^[25]:

This study has elaborated on experiences that an individual must face in between two emotions. Emotional self-reporting in each emotional situation or experience is described by methodology in which two types of knowledge, episodic and semantic, are made responsible to make emotional self-report. The study has established a common fact, that is, more specific emotions may easily turn into belief, but intermediate happenings between self-reporting emotions may find an individual quite reluctant to not go or move from upper levels (that is episodic and such) of the methodology. Accessibility is also marked by the study to get on to stage from stage like episodic to semantic.

METHODOLOGY

In any consumer marketing programme, various stages of behavior continuum are formed by help of several attributes like brand, color, packaging, store location layout design, etc. of a proposition interest.

Each stage gets its maximum or ultimate formation and it depends on nature of prospect and media promotion by intensity and attributions or such^{[26], [27]}. Viability of a stage to retention (by magnitude) at the stage itself is dominated by above several factors in association with the human himself/herself^{[28], [29]}.

Changes are always thereby to be towards some faint-like (but strong enough!) attitude making or attitude. So, there are lots of dimensions and factors always acted in a propositional marketing initiative. Methodology of this study would help to understand how an interaction between stages (of continuum) should be, to a business fulfilment, to prospect's need satisfaction, with total 'human' control and flexible “manual” manoeuvrability.

There must be fundamentals of each stage on behalf of their own applicability, functions and formation of existence and personality is also like a stage in the making of behavior continuum^[30]. To have modeling construction is important to know various features of stages of the continuum^[31]. Such construction should be not away from incorporation of any changes or instantaneous nature of stages' definitions^[32]. If emotion is given responsible for having a (continuum) stage to come out then emotional bifurcations or attributions should be taken care of^{[33], [34]}. In the modeling, such multiple-dimensions of behavioral implications and/or directions such as social media influence, effective communication^{[35], [36]} or so which might play governing role should be given always due consideration to become into a (precision!) result, to reflect rational entity (business or consumer) on a better spectrum of result. Besides these, various other aspects (of demography concern) must hold good in order to bring a better emphasis onto remarks of continuum modeling at a given scenario or business simply^{[37], [38]}.

So far discussed, there are, usually, various stages in a behavior continuum, namely perception, personality, belief, feeling, attitude, etc. of consumer marketing interest. Behavior is also regarded as a stage in the continuum (Figure 2). Rate of change of subsequent stage-interactions or how internal property of in-between stages could be explained mathematically, in a modeling way or such, is the study's interest point of view. A stage at whatever its value or magnitude would be should be depending on level of involvement of each stage or a stage of interest and degree of interaction between stages in subsequent. So, there should be two perspectives to understand this, namely, involvement and interaction. Subjectively, continuum here is for human only, not for other species like insect, animal, plant, inert object like land, chemicals, water, air and so.

Variables or attributes are to be present in both the perspectives and they (attributes) should be different in each of the perspectives. Both perspectives are time dependent. Difference in attributes across perspectives could be a modification over preferably. Towards behavior stage, stages usually get to be a higher one, by magnitude or such, as stage formation is happened or started.

Involvement (L) of stage

It is the stage location or position which is of fixed nature. Status of involvement that includes the position, level, magnitude, degree, etc. should pertain with and functional to various (a number of) attributes and their "variabilities". Each such position is like a reactive storage house (or chamber) in which several attributes are in continuous reactions amongst to produce the highs and lows of the stage; highs and lows correspond to the levels of the stage to be as high or low by level, degree and etc. This continuous highs and lows should get stopped by finally and it signifies the stage definition as Feeling, Belief, etc. So, action related to such positioning attainment is denoted by involvement action, denoted by L in this study.

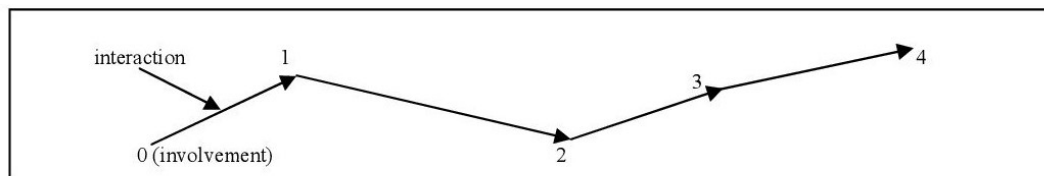


Figure 3: Layout of interaction and involvement perspective

Interaction (Z) between stages

It is the connecting line from one stage to another 'subsequent' stage. It is also to be "constructionally" built by variables or attributes. As like "involvement" described above, this should be imagined as a track (or long channel) where actions and reactions among variables should happen repeatedly and continuously, till the level in subsequent stage comes in and gets stabilized. This perspective gives evaluation and determination of the stage in subsequence. So, action related to such positioning attainment (in between stages) is denoted by interaction action, denoted by Z in this study.

[Note: Usually, stage in subsequence is not known prior as it is known after an interaction is accomplished in all respects. Also, the study by methodological interests has shown the way out to determine subsequent stage anticipation or definition in advance.]

Thereby, in between two subsequent stages, two perspectives must happen (as and when applicable) and be accomplished in order to form definition of the stages. Also, it is evident by descriptions of perspectives that into a continuum attainment, all stages are remained in a 'reactive' movement (among themselves), continuously and repeatedly.

Subjectively, definition status obtained by interaction should get modified once the status starts to become acting as involvement. So, involvement perspective is preferably meant for forwarding interaction only and does not bother much on its previous interaction if it changes on requirement or need of the forwarding or connecting or immediate interaction.

In Figure 3, involvement status is denoted by 0,1,2,3 and interaction by 0-1 (0 to 1), 1-2, 2-3 respectively like node and link. However, it is clear by the two perspectives that for 1, immediate consequent point is 2 while previous point is 0 and for an interaction say 1-2, it is usual that 2 never happens till 1 is not happened. So, in this way, by virtue of the two perspectives as explained, the continuum is ultimately developed and established. Already discussed that it is although unpredictable to ascertain consequent 'involvement' perspective in advance, but the study's methodology would be able to unshackle the shackles.

Interaction-Involvement Concept (LZ of modeling)

So far it is now clear that LZ function holds two operations, namely interaction and involvement. A level of attainment to arrive at a subsequent stage in continuum building is assumed to be defined by LZ function. Following would give insight concept of LZ that is methodological to research interest and for the study -

Let's consider stage-continuum path 0-1-2-3 (as shown in Figure 3), LZ for stage 2 should be written as, $LZ_2 = (\text{involvement function} + \text{interaction function})$ at stage 2.

[Note:

- Figure 2 denotes that stage points are as node and length between stages or nodes as link.
- Attainment of stage at a node or stage given should be equal to involvement level for succeeding
- link or stage length of the stage concerned.]

Let, L = involvement; Z = interaction; G = stage attainment by LZ.

Before proceeding to detailing, let's consider two phenomena as the following functional definition as,

- *Cause*: Interaction (it means an interaction is caused first in an attainment of continuum building stage).
- *Effect*: Involvement (it means an involvement is resulted after an interaction in an attainment of continuum stage).
- An involvement always happens due to an interaction. This means an *interaction decides* whether an interaction should happen.
- An interaction *may cause* to happen an involvement at a number of nodes or stages.
- *Each interaction* is defined and of unique nature.
- Interaction defines to *link*, while *involvement* is indicated by node (please see Figure 3).

Interaction (Z) Function Expression (methodological):

As stated, it should be always assumed that an interaction must always exist only between subsequent stages. As a stage is a node only, so self-interaction as defined for self-involvement doesn't exist here. Interaction expression for a given link is written as,

$$Z = (Z)_o + (Z)_{pre.} + (Z)_{post.}$$

where, $(Z)_o = Z$ at self-link or Z at the link concerned for which Z is getting calculated.

$(Z)_{pre.} = Z$ at link preceding to the link concerned.

$(Z)_{post} = Z$ at link succeeding to the link concerned.

So, Z at link 2 to 3 (Figure 3) is as, $(Z)_{23} = (Z)_o_{23} + (Z)_{12} + (Z)_{34}$.

Involvement (L) Function Expression (methodological):

As stated, it should be always assumed that an involvement must always exist at stage. Here, involvement

also considers the self-involvement of a node or stage concerned with other nodes. So, involvement

expression for a given stage or node is written as,

$$L = (L)_o + (L)_{pre.} + (L)_{post}$$

where, $(L)_o = L$ at self-node or L at the node concerned for which L is getting calculated.

$(L)_{pre.} = L$ at node preceding to the node concerned.

$(L)_{post} = L$ at node succeeding to the node concerned.

It may be mentioned that preceding and succeeding nodes could be *necessarily* (not essentially) the immediate ones for a given node concerned.

So, L at node or stage 2 (Figure 3) is as,

$$(L)_2 = (L)_o_2 + (L)_1 + (L)_3$$

Thereby, functional expression of LZ should be as,

$$G = LZ = \text{Interaction} + \text{Involvement}$$

$$\text{So, LZ for node or stage 2} = Z_{23} + L_2 = (Z)_o_{23} + (Z)_{12} + (Z)_{34} + (L)_o_2 + (L)_1 + (L)_3 = G_2 \quad \dots(\text{Eq.1})$$

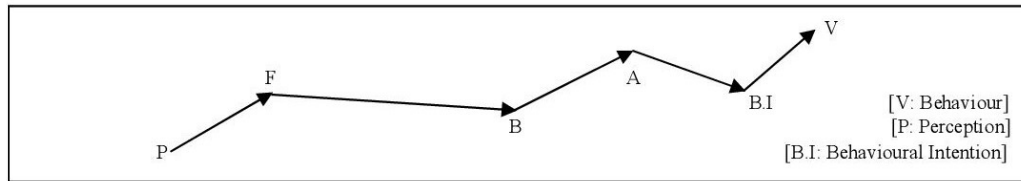


Figure 4: Variability in stage formations (profile view)

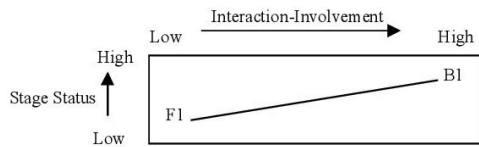


Figure 5.1: Stage in progression direction (+ve growth)

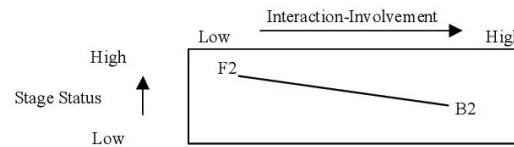


Figure 5.2: Stage in progression direction (-ve growth)

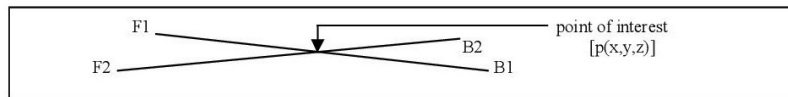


Figure 5: Joint effect (+ve and -ve growth)

[Note:

- Self-Interaction-
An interaction is assumed to have several factors as its own attributions. These factors may include micro and macro aspects which may be social, economy, tie-ups if any, demography, environmental etc etc. Such an interaction may also pertain to have an interaction with any other nodes and links also with itself. With these twos, a self-level of definition is attained at a link which is termed as self-interaction. It is denoted by Zo.
- Self-Involvement-
It occurs at node line self-interaction at link. Of all factors as caused upon to determine self-interaction, this is similarly happened to by them. It is denoted by Lo.
Presumption of level or magnitude at preceding or succeeding (node or link) may be taken care of suitably.]

In this way of methodological LZ, a certain level, in a stage (node only), that is arrived and attained at by both L and Z could be possible to be evaluated, estimated and determined.

Figure 4 shows the relational feature of Figure 3 by mentioning the involvement points by behavioral stages where P for perception, A for attitude and likewise. This would bring out several reflections of continuum stages into the building.

Foregoing discussions shall explore various insights on interaction and involvement phenomenon that occurs and happens on the continuum development, be it an instantaneous or ultimately a final one, based on the methodological interaction and involvement concept.

Stage (Inter-Stage) Variability Kinetics

As this research paper concentrates on how a stage is defined by the continuum processing, various possible kinetics that may happen and occur in forming a stage are required to be discussed of. This although clears out various obscurity in fragmentation, leading to making

the study well guided and insights grueling. So, such descriptions would be meaningful to any “stage” of interest.

The study has considered two stages for its descriptions in all and they are F and B. So far discussed by Figure 3, there should be the same way of positioning of the continuum stages as shown in Figure 4. Let’s focus on any two stages in consequent to each other and let they be F and B.

Already discussed that in developing and establishing a stage, two operations which are methodological also by the study’s interest, must be there always, namely interaction and involvement.

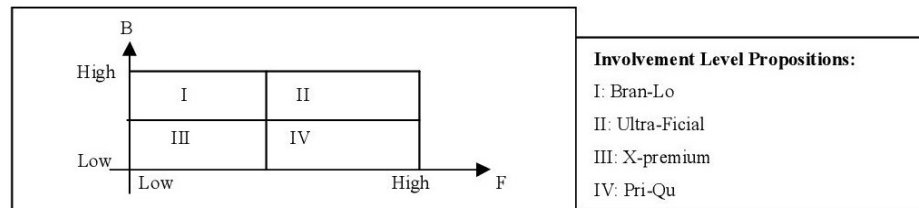


Figure 6: Outcome of LZ on stage attainment function between B and F

Table 2: Interaction (L) classification (on variability of B and F)

| Sl. | Degree of LZ | LZ outcome to product or service naming | Logic/Reasoning behind naming | LZ proposition (product/service) [^] | Interface (magnitude class of LZ) |
|-----|--------------|---|-------------------------------|--|-----------------------------------|
| 1 | I | Bran-Lo | Brand + Loyalty | Branded (loyal, trusted etc.) Ex. Keokarpin hair oil in India | F low B high |
| 2 | II | Ultra-ficial | Ultra level + Superficial | Ultra, superficial, acutely high touchpoint etc Ex. Luxurious lipstick | F high B high |
| 3 | III | X-premium | External or non-important | Non-premium goods (consumables) Ex. FMCG products | F low B low |
| 4 | IV | Pri-Qu | Price sensitive + Quality | Diverse (Penetrated/Differentiated), beauty/cosmetic, new product/service, price quality concern etc. Ex. Sweet and confectionery | F high B low |

[^]Ex. means example.

These two operations have also been analysed and evaluated to get on a mathematical enunciation as described by Eq.1. Now, in order to find out basic fundamentals of various insights between stages F and B, following descriptions would provide a base of the knowledge –

In a typical continuum-stage building process, there should be both the operations in place, always together. Eq.1 already has described this clearly. It is always desired in any continuum to building up, subsequent stages must uphold the levels consequently. This means stage B should eventually be at a higher level (or magnitude) than its prior stage F. But, it may not happen on rational ground always. This concept (of methodological interest) is shown by Figure 5 and Figure 6, where the growth of interaction backed up by involvement may go up or down depending on respective positive (+ve; improving) or negative (-ve; declining) growth.

Table 2 gives such a perspective to determine proposition outcome as a result of interaction, so getting described. Subjectively, the growth is already described by Eq.1 and it should always have to be by both operations (interaction and involvement as mentioned in the study) together in formation of stage concerned.

Now, by superimposing or combining the two patterns of growth shown by Figure 5, a joint effect could be possible to be obtained and it is shown in Figure 7. This is the profile of a stage getting defined of through various intermediate developments by rise and fall and then again rise after fall and so on) wherein each rise or fall commences with the joint intersection point denoted by p (Figure 5).

Such a profile (of F to B formation) can also be reversed if fall happens much on insufficiency. Both the directions, during the traversing over trajectory profile of continuum development, are shown in Figure 7 and they are (to be) spontaneous and simultaneous also.

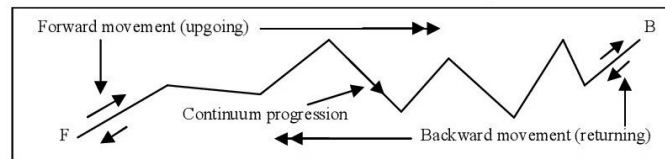


Figure 7: Variability profiles between B and F (instantaneous and simultaneous)

Intersection obtained in the joint effect should have the subjective meaning and it's of self-expressive nature by virtue of all variables so attached or associated in. F1, B1, F2, B2 are, therefore, the growth-based stage magnitude or level (Figure 5) and when number of such levels are formed they construct the one shown by Figure 7.

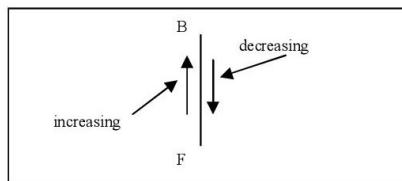


Figure 8: Vertical Profile (F fixed, B varying)

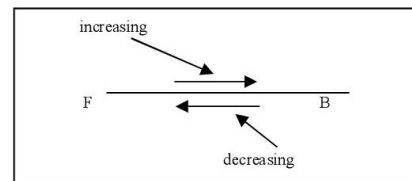


Figure 9: Horizontal Profile (B fixed, F varying)

Rise means positive growth while fall indicates lower in growth of the stage (concerned) to develop in continuum development. Through such continuous rise and fall (again and again), a stage in succeeding direction of continuum development gets finally formed. It is assumed in the study that all intermediate (be it of whatever instantaneous by nature) stages should follow such continuous rise and fall before attaining at their succeeding stages finally.

Kinds of growth, as +ve or -ve definition, in their profile can also be of horizontal or vertical nature (based on direction of progression of stage improvement or attainment) as given by Figure 8 and Figure 9 respectively. As always defined, reverse growths should be always of decreasing nature and positive growth always an increasing pattern. As all growths considered here in the study are to be of spatial nature, so any "reverse" growth is necessarily to be of "negative" definition kind and vice-versa. It should be mentioned that profile pictures (such as Figure 7, Figure 8, Figure 9) are not based on an axial system and all growth profiles (or gradients) are spatial.

Fluctuations In Stage and Stage Following Trajectory Profile

Before going to further findings and discussion, let's call the two operations, involvement and interaction, together as LZ (L as involvement and Z as interaction as described earlier).

Eq. 1 expresses the views of L and Z in computation of stage attainment mathematically. It is customary by the study's finding to accept that both L and Z together must be in action always

in determining attainment level of a stage. Once a stage is attained finally, it is not possible even then to proclaim that it would not go back to its preceding stages. However on a stretch of continuum development, each stage must attain to its succeeding stage or stages in order to define finally the stage “attitude” of it.

Also, it is to be very true that levels of action in all stages must be not the same throughout. Moreover, duration of attainment for all stages may not be equal across all stages in an attitude or continuum development. In this way, with effect of LZ, all stages get their realization and magnitude of attainment decision for their final one, in their succeeding.

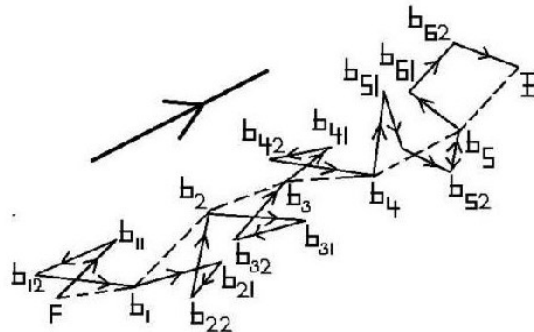


Figure 10: Profile variations of stage attainment (Fourier series function in continuum)

Based on above and earlier concepts, the study now delivers a schematic layout of growth profiles of stage in a continuum development. Such a layout is given in Figure 10 where direction of stage attainment shown by big arrow (thickly, inclined) indicates the direction of progression (that is, attainment) of stages in the continuum.

Table 3: Inflections and its kinds at level variability

| Main Stage Way (actual profile) | Branched Stage Way Of Stage-Point (measured profile) [^] | | Continuum Growth (+ve or -ve) [^] | Inflection (by kind) |
|------------------------------------|--|-------------------|--|--------------------------------------|
| | From | To | | |
| F to b1 | F (starting) | b11 | +ve | 1 st inflection |
| | b11 | b12 | -ve | 2nd inflection |
| | b12 | b1 (ending) | +ve | 3 rd and final inflection |
| b1 to b2 | b1 (starting) | b21 | +ve | 1 st inflection |
| | b21 | b22 | -ve | 2nd inflection |
| | b22 | b2 (ending) | +ve | 3 rd and final inflection |
| b2 to b3 | b2 (starting) | b31 | +ve | 1 st inflection |
| | b31 | b32 | -ve | 2nd inflection |
| | b32 | b3 (ending) | +ve | 3 rd and final inflection |
| b3 to b4 | b3 (starting) | b41 | +ve | 1 st inflection |
| | b41 | b42 | -ve | 2nd inflection |
| | b42 | b4 (ending) | +ve | 3 rd and final inflection |
| b4 to b5 | b4 (starting) | b51 | +ve | 1 st inflection |
| | b51 | b52 | -ve | 2nd inflection |
| | b52 | b5 (ending) | +ve | 3 rd and final inflection |
| b5 to b6 | b5 (starting) | b61 | +ve | 1 st inflection |
| | b61 | b62 | -ve | 2nd inflection |
| | b62 | b6 (ending) | +ve | 3 rd and final inflection |
| b6 to B | b6 (starting) | b71 | +ve | 1 st inflection |
| | b71 | b72 | -ve | 2nd inflection |
| | b72 | B (ending) | +ve | 3 rd and final inflection |

[^] arrow mark indicates an inflection formation; direction of progression: left to right; actual: dotted line, measured: firm line.
^{^^} considered or assumed.

Fluctuations as shown in Figure 7 are hereby detailed in Figure 10 to an extent of knowing the intermediate phenomenon or happening. In this, a stage called F (feeling) traverse through a number of sub-stages. Two profiles, marked by actual (dotted line) and measured (firm line),

are finally obtained for a given stage processing or attainment. Before attaining any point of actual profile, a stage (intermediate or instantaneous or so) should follow and consist of a number of traverses (each such traversed way holds a length of traversing and a growth profile of +ve or -ve kind as described earlier).

In Figure 10, there are three (3) such ways considered or shown for its understanding concern. For example, for actual stage-profile length b_1b_2 , the three ways are b_1b_{21} , $b_{21}b_{22}$ and $b_{22}b_2$. Though there should be such ways by any number, such happening (fluctuations) must always hold as a true event in between two subsequent stages in continuum development. Table 3 gives profile-based stage ways in which inflections are indicated alongwith corresponding growth levels. In this way, there should be always two profiles (actual and measured) found in any stage attainment of continuum development and we could find out any sub-stage or branched stages phenomenon as given by Table 3 and Figure 10.

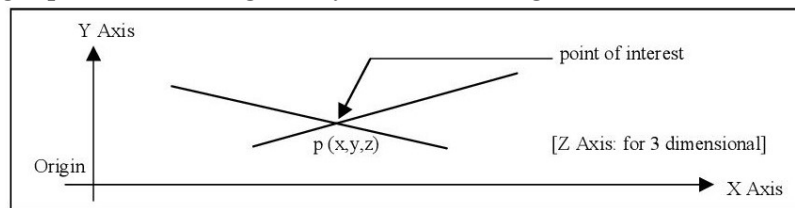


Figure 11: Joint effect (Axial Field System)

[Note:

- point 'p' in Figure 5 is nothing but also an inflection point.
- dotted line and firm line as actual and measured profile of stage attainment in the continuum respectively.
- direction of continuum building or growth is indicated by arrow mark shown in Figure 10; each change in direction of profile is an inflection point. Example, b_{11} or b_{12} is as an inflection point for stage b_1 .]

In a kind of logic, numbering of points has been given into Figure 10. By the same logic, there could be points like b_5 where stage length b_5b_{52} or $b_{51}b_{52}$ should also exist, by considering nature of growth as described earlier well upto Figure 9. Actually, repetition in attainment of stage may occur by reverse motion of the attainment (Figure 7, Figure 8, Figure 9). Also, it should be not forgotten that all such profile-points must be attained by spatial positioning always.

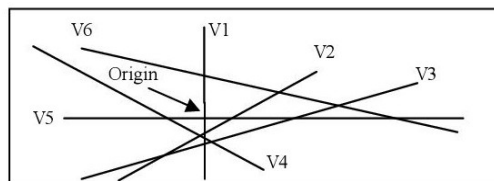


Figure 12: Multiple Propositions (Non-Equi-Origin Stage Attainment)

Subjective field of discussion, as expressed earlier, is taken as consumer marketing where proposition is usually placed before a prospect's attitude-making processing in order to create and establish a positive "persuasive" impact that is representative of proposition itself and such persuasion is also said to be a stage in making of continuum. As said earlier, in the study, stages like B and F with an objective to determine the modeling methodology has been taken as the stages in subsequence, for the description.

So far, it is thereby obtained that in any consumer marketing field of continuum development, level of F may get an increase or decrease by magnitude during stage definitions by fluctuation (Figure 10). All growths (+ve or -ve) must be by L and S together (Figure 5.1, Figure 5.2, Figure 8, Figure 9), as defined by Eq.1. Again, Figure 5 is profile layout after superimposing Figure 5.1 and Figure 5.2 whereas Figure 10 shows detail happening of sub-stages' of Figure 5.

Stage Attainment Intersection

Point 'p' has significance in modeling the study as well. By fundamental concept as shown by Figure 5, 'p' is the point where respective level of B or F gets on a level of equality. Figure 7 shows it in a way of continuum progression where similar behavior or style or nature of forming such an intersection (p) is visible to be seen or recognized. Figure 10 proves this along with exploration of several insight features.

It is thereforth quite clear and evident that for the sake of "consumer marketing" field of study such superimposition does always create an intersection always and it is to be a basis of consideration also which shall be helpful in all respects to arrive at best level of outcome or stage attainment.

[Note: By vector analysis, "resulting" position or level of stage (please see Figure 7, Figure 10) can be determined. Although Figure 10 resembles as zig-zag way but it's actually "spatial" by nature (that is, movement with translation) and so, such ways can move freely to any dimension and/or direction for its spatial definition.]

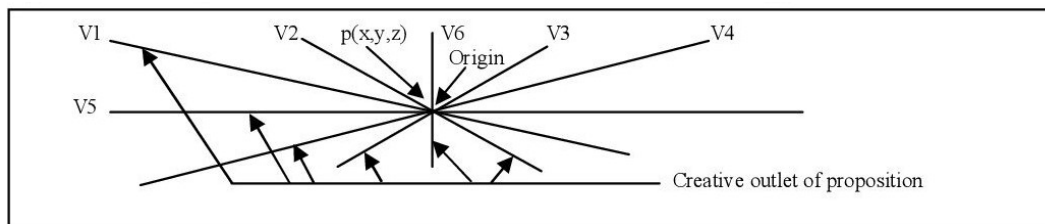


Figure 13: Joint Effect Possibilities (Equi-Origin Stage Attainment)

Significance of point 'p'

In axial system, position of p can be understood better by co-ordinate system of geometry (Figure 11). Suppose there are four profiles (V₁, V₂, V₃, V₄) corresponding to four quadrants. All these profiles should create intersection point 'p' in quadrant by relevance.

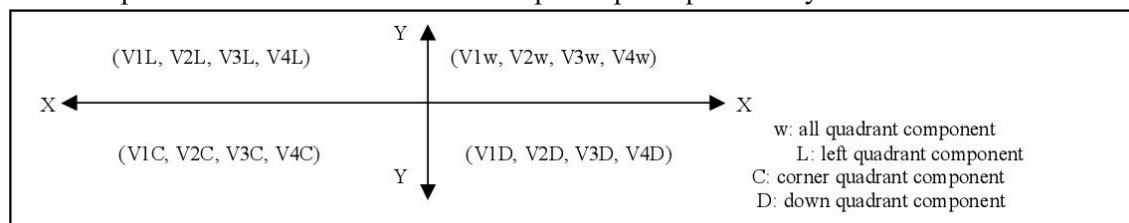


Figure 14: Quadrant based stage inflections

Figure 12 shows quadrant-wise layout in having such p point (at each intersection). Figure 13 gives similar illustration where all profiles from all quadrants emerge out into a single point at origin. Profile V₅ and V₆ can be treated as horizontal and vertical profile respectively as shown in Figure 9 and Figure 8. These indicate that inflection point (p) can occur at any quadrant, including into a similar point of interest like an origin or so.

Subjectively, each profile V_1 , V_2 , V_3 etc as it holds senses of proposition definition (product/service in consumer marketing) by level of continuum progression or development needs to be taken care accordingly while dealing with it for a serious endeavour. It becomes more knowledgeable if Figure 12 and Figure 13 are understood in Figure 10 or conversely, Figure 10 with respect to Figure 12 and Figure 13. Figure 14 shows quadrant-based possibility of positioning or formation of stage-profiles.

Symbols so used are correspondingly relevant for understanding. For example, V_{1w} which is an inflection point for quadrant 'w' does indicate its corresponding positioning or formation for quadrant L, D and C by V_{1L} , V_{1D} and V_{1C} . So, this is the possibility of having such inflection point by quadrant. So, Figure 14 can thereby be recognized as culmination of Figure 12 and Figure 13, as for an outline understanding.

Table 4: Across concept in inflection

| Feature of quadrant | Quadrant by intersection or inflection | |
|---------------------------------|--|---------------------------------------|
| | Alike Quadrant (Within Quadrant) | Unlike Quadrant (Across) [^] |
| Type of condition of inflection | Equi and Non-Equi-Origin | Equi and Non-Equi-Origin |

[^]Across concept happens only on Unlike Quadrant

Following three conditions have been arrived in limelight of above description –

Condition 1: Non-Equi-Origin Stage Function (intersection or inflection other than origin)

Figure 12 is condition here. Location or position of intersection other than origin-like feature is to be a quadrant based always. This quadrant location and its corresponding LZ features are hereby defined as Non-Equi-Origin condition of stage function. As motion of stage attainment is spatial by direction (as study's assumption), quadrant-based determination can open up quality or nature of orientation or movement of stage (or sub-stage) profiles as delineated by Figure 10.

Condition 2: Equi-Origin Stage Function (intersection or inflection at origin)

Figure 13 is condition here. In this, inflection or common point 'p' of all stage profiles is arrived at one single point or position which is at origin-like feature. So, attainment of stage may experience such a common point position by concerned stages as happened over Figure 10.

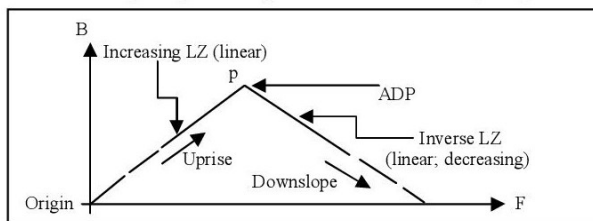


Figure 15: Profile Variation of B-F

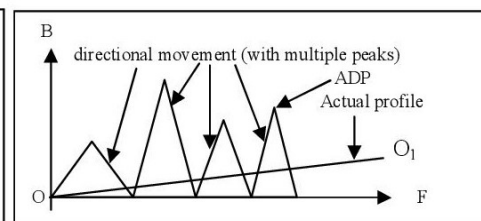


Figure 16: Profile Variation of B and F

Condition 3: Across (Equi- Or Non-Equi-Origin Intersection) Stage Function

It is the stage function as like as the culmination (Figure 14) but slight difference lies owing to largeness in length of stages involved in an intersection happening. In this case, stages from other quadrants get involved in making an inflection (please see Table 4). Note:

- Intersection of Within Quadrant is specifically for a given quadrant and hereby known to be applicable for (sub or intermediate) stage attainments of smaller lengths as shown by Figure 10.
- Term “stage attainment” or “stage attainment function” is to be always a functional to LZ of Eq.1.
- Any condition, as stated above, should always be subjected to progression direction shown by Figure 7 to Figure 10. So, reverse progressions are hereby included for any of above 3 conditions.

Probability and Frequency Of Stage Function Variability

Upto this, interaction alongwith involvement that is LZ has been described and well understood on axial system of co-ordinate geometry and related enunciation. Also, an interaction on attainment of a stage so discussed in this study gives the various boundary possibilities into the study as well. Again, it's hereby mentioned that Eq.1 must be a basis always of these findings.

Stage attainment profiles, so far discussed, once plotted on an axial system would resemble like Figure 15 which should be according to earlier descriptions, holding the phenomena like forwarding and backwarding in growth pattern as shown by Figure 15.1 and 15.2.

Though the attainment profiles are spatial by nature but they could be presented altogether on an axial system as shown in Figure 15 and in this case of spatiality, elevation (sectional) view must be taken care of accordingly. Subjectively, X and Y axis should be along an imaginary line or reference with respect to which the axial system would be created and work on to show the profiles happening of Figure 10. Suitability must be given always in this regard of imagination.

[Note: Figure 15 has two sub-divisions which are Figure 15.1 and Figure 15.2].

In a stage attainment, the returning back phenomenon (assumed of the methodology) can also be presented by Figure 15.1 and 15.2. The phenomenon may be of two kinds - increasing and decreasing. For a set of increasing and consequent decreasing the profile would ultimately resemble as the one of the kinds as shown by Figure 15 and if it continues on such increasing and then decreasing pattern, Figure 16 would be its substitute presentation where multiple peaks would be seen and they should define a stage attainment position (that is, b_1, b_2, b_3, \dots etc.) of Figure 10. Let's this position of stage attainment be termed here as “*attainment deviation position*” (ADP).

Interestingly, such ADP would be possible to be found (as shown in Figure 10) at any intersection of stage attainment profiles and that is definitely a level of stage and may be of instantaneous kind. Depending on increasing (as +ve growth) or decreasing (as -ve growth) nature, an attainment should not get its final or finalization instead of keeping the decision making on levels of interpretation or validation or such over some time period. Within such time period of thinking or decision making, several numbers of LZ profile must be obtained (as shown by Figure 10). This physical and natural phenomenon (of decision-making thinking), as may be given against field of consumer marketing or so, should always enhance or encourage to form the variability profile by probability and frequency where probability does mean to each profile (of its happening and so) and its happening and frequency to number of profiles.

It is to be thought of always that how variation between stages on an attainment could take place on a given LZ. Subjectively, ADP must always hold the level within an attainment to signify inflection in the happening or phenomenon. Also, all intersection points as observed as seen through Figure 10 or Figure 16 must thereby be holding ADP designation and definition always.

At what time or instance such variability does occur or happen?

It is an obvious question but it may come to mind though, of research pursuits that what may be the physical appearance of such variation in stage attainment! Figure 10 is the schematic of attraction here. Suppose in a consumer marketing field of discussion, a consumer must not gain an attainment of any stage (intermediate) earlier or so faster. Whatsoever the rapidity (of decision making) does take to, the attainment must take some directional movements on the LZ and it may be instantaneous and may not be. But, all cases (instantaneous and all) must satisfy the “spatial” movements of stage attainment profiles on every a little (or larger!) time. Due to spatiality, axial system should always define a crossing of profiles, one over another (as shown by Figure 10), as an intersection owing to the axial “co-ordinate” system. Every intersection by term is thereby ADP in the study. All ADP must have various implications (to use!) by their physicality and all.

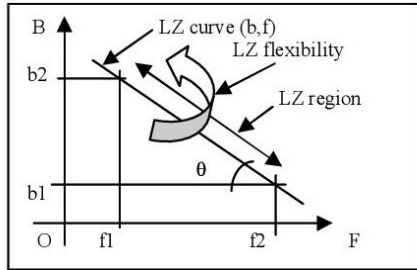
So, due to happening of a time-based upgradation (+ve or -ve or else growth) into a stage attainment, there should be a number of LZ profiles and each such LZ profile must bear some mathematical expression in order to define its ‘own’ trajectory path and character. If it’s of complex nature, then it may be simplified by approximation to suitable category (linear, exponential, etc.) of mathematical interest. However the variability concern is thereby valid to the concern of physicality and by the mathematical way of interests.

Computation or Estimation of LZ Profile

Each LZ profile is always to be under both the operations, L and Z, which has been given through a mathematical understanding as elaborated in Eq. 1. As already explained earlier, point b_{11} in Figure 10 gives a measure of stage attainment whatsoever its status or stability is in the entire stage attainment. Subjectively, b_{11} is with lesser stability of mark than b_1 which is making the trajectory profile of or as actual.

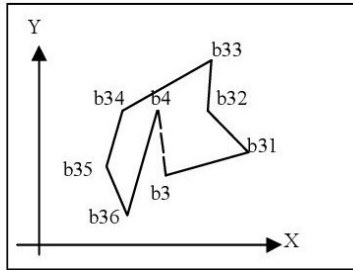
Figure 15 gives a schematic outline showing *growths of variety* as it happens along the path of stage attainment; be it instantaneous or else. Uprise defines positive and downslope to negative growth; a growth that has gained over previous stage or stage-growth gradient is to be a positive one. Also, Figure 10 should be in relation of positivity and negativity of Figure 15.

Figure 16 is hereby shown by co-ordinate based framework of expression given by Figure 10 for a number of iterations or decision-making based stage-attainments, by variety of growths definitely. Each triangle so formed as shown in Figure 16 can be calculated for its area which should signify the attainment level (in between two concerned stages) in terms of unit area.

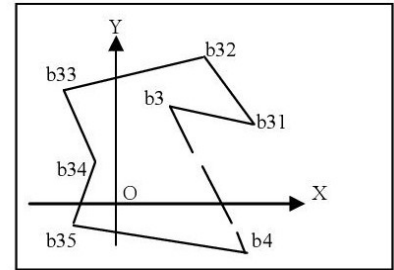


**Figure 17: Basic LZ profile
(Actual or Measured)**

(B fixed, F variable; F Fixed, B variable)



**Figure 18: Continuum Profile
(Within Quadrant)**



**Figure 19: Continuum Profile
(Surrounding the Origin O)**

[Note: Downslope should always indicate its progression towards forwarding tenacity to continuum development irrespective of whatever its magnitude is having with.]

Actual and measured profile can also be plotted on Figure 16 on the imaginary axial system or reference axial system. OO₁ as shown by Figure 16 is thereby meant and working as actual way of attainment profile.

Flexibility of LZ functioning and Conditional LZ Profiles

So far it is so discussed that relational feature on attainment of stage in continuum building does exist on a gradient of growth in between two subsequent stages. We can now illuminate our concept on an axial system in which two stages (so considered for understanding) are now going to be presented along respective two axes. Let it be F and B along X and Y axis respectively (Figure 17). This way of presentation is highly possible as it satisfies relevances of validation, by mathematics and all.

Table 5: Base of four Conditionals

| Conditional | F Base | B Base | Criteria Of Spaced (equi- or non-equi-) [^] | Criteria Of Gradient (identical or different) [^] | ADP (Yes/No) |
|---------------------|---------|---------|---|---|--------------|
| Fixed or Varying | Fixed | Varying | Both possible | Both possible | Yes ADP |
| | Varying | Fixed | | | Yes ADP |
| | Fixed | Fixed | | | No ADP |
| | Varying | Varying | | | Yes ADP |

[^] this indicates three fundamentals (given in Table 6).

As growth of stage attainment is functional to inter-relation between the stages concerned, so the growth can easily be re-presented on axial system where the involved two stages should define corresponding functional axes. In Figure 17, an illustrative downslope gradient is shown which could be also otherwise pattern (say, upslope kind), for any quadrant. So, similar applications should be validly useful for upslope also as getting applied and seen for downslope (by Figure 17).

In order to have knowledge or concept of Figure 10, a flexibility moment is to be given onto gradient line (shown in Figure 17). This moment should take the gradient to bring to up or down or swaying laterally on movement of spatial direction as discussed by Figure 10. This moment is hereby called as *spatial movement* or *LZ Flexibility*, so termed as for study's interest, and it has value ranging from zero to 360 degree (both clockwise and counter clockwise); traverse is not closed one but open and resembles as a spiral.

Such profile should make traversing profile, like as exemplarily shown by Figure 18 and Figure 19 in which actual profile of b3 to b4 (that is, b3b4 attainment line; not in scale indeed) in relation to concept of Figure 10 is depicted for each of its sub-attainments; be it instantaneous or else. As the moment must work on both kinds of gradient (upslope and down slope), there should be also the responsibility or liability of moment to transform the nature of gradient from upslope to downslope or reverse (that is vice versa).

Subjectively, as already mentioned in Figure 10 and all, there should be continuous rise and fall repetitively, till an attainment is said to as final one. Owing to spatial nature of movement, moment does always have the flexibility to avoid incurring any losses (especially during transformation) on the intensity of stage attainment magnitude.

Table 6: Base of fundamentals

| Fundamentals | Base | ADP (Yes/No) |
|--------------|-----------------|--------------|
| Spaced | Equi-spaced | No ADP |
| | Non-equi-spaced | Yes ADP |
| Gradient | Identical | No ADP |
| | Different | Yes ADP |

Now, further research is done to find out on what probabilities or conditions such an increase or a decrease may happen on attainment growth by gradient magnitude and length of attainment both.

[Note: Followings should be kept in mind always (please compare Figure 10, Figure 18, Figure 19) -

Magnitude of gradient (slope of gradient) -

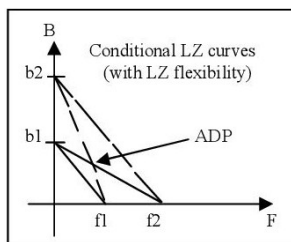
It indicates at what rate an attainment is going on or set. Steeper slope is assumed to be efficient while lowering slope to stable one or cautious or so.

Length of attainment (length of slope) -

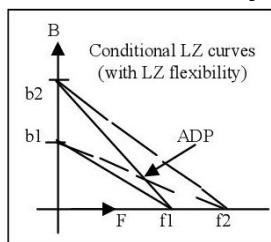
It indicates resources to be mounted on to arrive at subsequent attainment. Resources include cost, time, degree of LZ and etc. Thereby, LZ Potential = (Magnitude + Length) of slope.

Swaying of slope (directional potential) -

It signifies direction of fulfilment or satisfaction of attainment. It takes various incorporations like adjustment, compensation, biases, validation searches, accountability estimation, dilution of intense traces, etc. Therefore, **LZ Flexibility = LZ Potential + LZ Directional Potential.**]



**Figure 20.1: B fixed
F varying**



**Figure 20.2: F fixed
B varying**

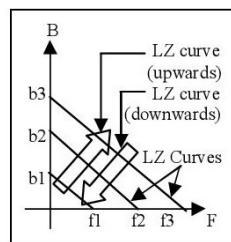


Figure 20.3: Both fixed

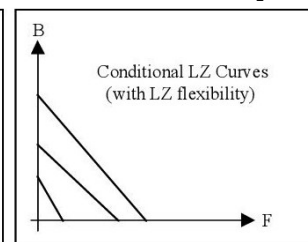


Figure 20.4: Both varying

Figure 20: Conditional LZ Changes (of B and F)

Based on Figure 17, it is obvious that there should be various possibilities of having a

positional strength of f and b (f for stages of F and b for stages of B as shown in Figure 17) on traversing of LZ as given by profile variations shown by Figure 8 and Figure 9. Such positional strength though implies a level attainment of stage should be obtained by four possibilities which are termed by *Conditional* in the study. Table 5 gives insight or background scenario of such four conditionals and Figure 20 shows the classifications. It is now evident that there should be four conditionals of having a relational outcome in between F and B. These conditionals are always to be under subjection of some guidelines which are termed by Fundamental (Figure 21) in the study (please see Table 6 also). These guidelines or fundamentals are to provide the concept of how above conditionals should work on. Although, conditionals should have governance in resulting formation (Table 7) once they are thought of with (in a combination of) fundamentals.

Significance of presence of ADP in stage attainment indicates its own role by its own definition and is entirely reflects efficacy of stage functioning into a continuum modeling or building. So, a general layout may be coming out from above descriptions based on conditionals and fundamentals and it is given in Figure 21.3 for a given stage attainment upon its several ways or sub-stages that may be forming in (please see Figure 10).

Combinational Conditionals

So, till now, we've got sixteen (16) number of relational modeling in between two subsequent stages in consideration in a continuum building. This outcome is very much core to the concept subject to further manifestation of it, as suitably applicable. Propositional character as given by Figure 6 should now get its enormous possibility of getting defined by into several 16 numbers of relational conjugations alongwith variability by possibilities, as shown by in-between F and B here. This finding is ultimately signifying variability concern of continuum modeling. Subjectively, there could be increasing number of profiles once manifestation like feature of upslope or downslope is taken into description (Table 8). In that case, total 32 featured profiles are possible and can be found as the profile bases for continuum modeling.

Table 7: Resulting effect on ADP determination

| Sl. | Fundamentals | | Conditionals | | ADP (Yes/No) |
|-----|--------------|-----------------|--------------|---------|-----------------|
| | Base | Sub-Base | F Base | B Base | |
| 1 | Spaced | Equi-spaced | Fixed | Varying | Yes ADP |
| 2 | | | Varying | Fixed | Yes ADP |
| 3 | | | Fixed | Fixed | No ADP |
| 4 | | | Varying | Varying | Yes ADP |
| 5 | | Non-equi-spaced | Fixed | Varying | Yes ADP |
| 6 | | | Varying | Fixed | Yes ADP |
| 7 | | | Fixed | Fixed | No ADP |
| 8 | | | Varying | Varying | Yes ADP |
| 9 | Gradient | Identical | Fixed | Varying | Yes ADP |
| 10 | | | Varying | Fixed | Yes ADP |
| 11 | | Different | Fixed | Fixed | No ADP |
| 12 | | | Varying | Varying | Yes ADP |
| 13 | | | Fixed | Varying | Yes ADP |
| 14 | | | Varying | Fixed | Yes ADP |
| 15 | | | Fixed | Fixed | No ADP |
| 16 | | | Varying | Varying | Yes ADP |

Construction Of Continuum Modeling– LZF Modeling

Now, modeling construction of continuum building has been narrated, indeed in terms of LZ concept. This segment of description would narrate the way of creation a simple mathematical

modeling based on a given functional relation between two stages, B and F. So far discussed by several outcomes earlier in this study, it is quite now clear and evident that there must be a relationship holding between any two stages in the continuum that can be expressed mathematically.

Given all subjective components of the study as valid and functional, any relation holding mathematical evidence can be described at ease like the one given in following –

Let's assume relationship between stage B and stage F as a linear (straight-line) mathematical expression. As expressed in Figure 15 or Figure 17, the straight-line variability can be written as,

$$B = m * F + C \quad \dots(\text{Eq.2})$$

where,

B = magnitude of B (dependent variable); Belief as B.

F = magnitude of F (independent variable); Feeling as F.

C = intercept or constant.

m = slope of the straight line or gradient (constant).

* = multiplication sign.

As B is assumed in this study to be following F stage, so B should be 'dependent' functional always to 'F' stage which is to be the variable of independent nature. Taking this methodological consideration, Eq. 2 is re-written as,

$$F = (B - C) / \tan\theta \quad \dots (\text{Eq. 3})$$

where, m = tan (slope); θ = slope of the straight-line profile.

In behavior continuum, for a given stage all succeeding stages to it are to be of nature of dependent variable while all preceding stages to the nature of independent variable. In LZ description between two subsequent stages in continuum, variable or variability nature to be applied mathematically should be like this. Its nature of could be of any kind of mathematical interest like exponential, log-growth, polynomial etc and etc.

Using Eq.3, C can also be expressed in terms of B, F and slope (or gradient) as,

$$C = B - F * \tan\theta \quad \dots (\text{Eq. 4})$$

To have an effect of gradient or slope of Eq.3, value of C plays a prominent role in it. Table 9 gives a basic finding as related by above equation and such gives status of LZ and variability of applicability onto stage attainment level.

Table 8: Components to LZ modeling (Concept Classifications)[^]

| Sl. | Component | Feature | Definition | Total Components (TC) |
|-----------------------|-------------|---|---|-----------------------|
| 1 | Fundamental | Figure 21 | <ul style="list-style-type: none"> Whether equi-spaced changes on gradient or not. Whether equal changes of gradient or not. | 2+2=4 |
| 2 | Conditional | Figure 20 | Possibilities of relationship between B and F - <ul style="list-style-type: none"> each of four conditionals. | 1+1+1+1=4 |
| 3 | Framework | Depression (-ve growth) Elevation (+ve growth) | Whether relationship between B and F on uprise or downslope (Figure 10, 15 or 22) <ul style="list-style-type: none"> Uprise (+ve growth) Downslope (-ve growth) | 1+1=2 |
| Total=4*4*2=32 | | | | |

[^]Framework may be a manifestation outlet.; *=multiplication symbol.

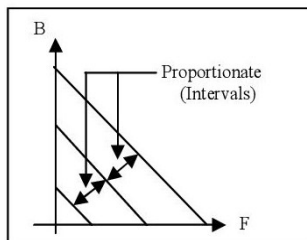


Figure 21.1: Spaced LZ (equi-/non-equi-)

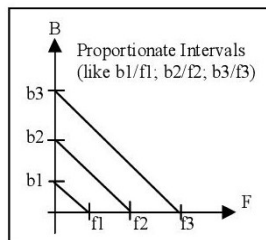


Figure 21.2: Gradient LZ (identical/different)

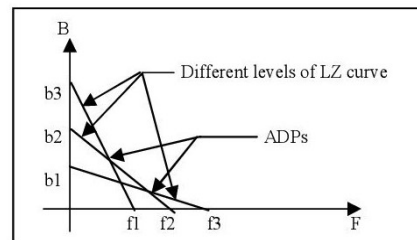


Figure 21.3: Variable LZ Curves

Figure 21: Various Kinds of LZ Fundamentals (Unique and Variable) (proportionate and non-proportionate)

Now in order to construct the LZF modeling work, Eq. 3 shall be applied to be used up by assuming various values (numerical 0.1 to 1.0) against variable B and others as applicable (Appendix 1a). So, we can get a list of values if we consider values, as assumption, for variable as stage B for given values of gradient 'm', as given by a format shown by Appendix 1a. This way of making up the values as correspondent to the relation between B and F should form and construct an expressive approach to define the LZ as 'to be' applicable between B and F. The study considers that there must be a necessity of applying weightage (numerical) to the involved variables in the mathematical function. Appendix 1 shows that variable B has got its new dimension by weightage initiation, numerically, into it. Such values while applied by Eq.3 should obtain the list for corresponding m values as well. Appendix 1b shows a depiction of the values where 10 different levels (by weightage) are considered to obtain the F values. This tabulation is highly useful in getting the desired values for such a set of the variables expressed by Eq. 3.

All symbols used in the study computation are only for describing their related application by marked notation. They have no other meaning of application. We can now easily make up a regression of values so obtained. But, it is done in a different way of elaboration. In Appendix 1b it is shown that on both sides (row and column) some computations are made. These are WA, A and D meant for weighted average, average and difference. For row-wise and column-wise values, these are classified into WAB, AB, DB and WAS, AS, DS respectively. These are self-expressive by nature and explained in Appendix 1c.

Values so obtained or computed by such modelling construction are then put on the regression

analysis and found with their trend-line outputs. For information, linear trends are found to be coinciding with observed and obtained values of computation or profile. And, the exponential profiles are found with their interesting nature of the profile to have the F values in pattern.

Table 9: LZ status versus status of Constant C

| Situation of continuum | Functional Variables | | | LZ status [^] (with “C” Positivity) |
|-----------------------------|----------------------|----------------|---|---|
| | B (assumed) | F (assumed) | C | |
| At the start of interaction | 0 | 0 | 0 | No interaction exists |
| At half-way to full | 0.5 | 0.5 | $0.5 * (1 - \tan\theta)$ | Equal development where $\theta \leq 26.56^\circ$ to 56.28° |
| At full ‘unity’ | 1.0 | 1.0 | $(1 - \tan\theta)$ | Equal development where $\theta \leq 26.56^\circ$ to 56.28° |
| B lower F higher | 0.5 | 1.0 | $(0.5 - \tan\theta)$ or, $0.5 * (1 - 2 * \tan\theta)$ | Unequal development where $\theta \leq 24.5^\circ$ to 28.7° |
| B higher F lower | 1.0 | 0.5 | $(1 - 0.5 * \tan\theta)$ or, $0.5 * (2 - \tan\theta)$ | Unequal development where $\theta \leq 56.30^\circ$ to 63.95° |

[^]it should mean to continuum-stage transformation from F to B and vice versa as well.

These trend-based profiles are shown in Appendix 2. Row-wise and column-wise values so obtained by Appendix 1b are respectively shown in appendix 2 in Appendix 2.0 and Appendix 2.1. There are six sets of curves in each of the computation pattern and this is on the variability nature in C value. Appendix 1d is given with the profiles in equation for Appendix 2.

Such values are presented in terms of profiles and by trend-line equations, given in Appendix 2 (from Appendix 2.1 to Appendix 2.12), for various values of constant C (equal to zero and more than zero), as applicable.

In this way, the modelling LZF so obtained must be ascertained with the fact that it should be in well compliant to LZ concept as explained.

Herewith, some salient points of the study are given as followed:

- All members of behavior continuum act in Fourier series function like a sound wave, impaction wave and so on.
- Each connected relation between successive stages should be not necessarily subjected to similar magnitude of amplitude or attainment level (please see Figure 10).
- Entire process is sequential (that is, pre-fixed by stages).
- Be it so minute in nature or magnitude, on each time (even a small ‘instantaneous’ kind) of instance there is happening of only one in number, of connected relations, in continuum process.
- Sequential processes may be of increasing or decreasing nature which should always follow Fourier series function on transformation in stage attainment and definitions of “sequential” series function of repetitive or continuity kind, of mathematical interest.
- Table 8 is the basis of the study in determining out a continuum modeling.

Assumptions of the study (Considerations of Continuum Modelling)

Unless otherwise stated, following is the assumptions of the modelling study –

- A stage is always subjected to LZ, irrespective of any PDs or CPs.
- All involved considerations in determining Eq. 1 are the assumed consideration.
- Eq. 1 should always be responsible to determine a stage attainment, instantaneous or else.
- A stage must follow a number of paths (both forward and backward) prior to its final attainment, towards direction of continuum.
- Recycling is acceptable upto the level or degree of fulfilment of a stage attainment.
- Both positive and negative growth a stage may take during its negotiation of the attainment.
- A stage in succession and consequence may be at lower level or degree than its preceding one.
- A succeeding stage should not happen and occur until its connected preceding one is not complete. Also, succeeding stage may go back or return to any earlier or preceding stages, till an attitude is said to happen. So, a to-and-fro directional movement (termed by profile direction, PD; Figure 15) should exist in every stage during the stage attainment.
- PD may be above or below or both combining with respect to CP for LZ in between two stages.
- A number of PDs must be available in any stage attainment.
- There should be only one trajectory of stages' going, that is, continuum profile (CP), in a typical continuum setup.
- One PD may sustain over a period of time before the succeeding stage attainment or even without changing to another PD.
- All final stages must be in connection to each other in order.
- A definite point of intersection in between two stages should always happen and occur when the two stages (during PD) pass through LZ of each other during the stage attainment. There may be number of such intersection points in between two stages.

Table 10: Evolution of a proposition "product"

| Attribute | Stage Attainment Variable [^] | | | Product (Lines) |
|-----------|--|-----------------------|------------------------|--------------------------|
| | F=feeling | B=belief | A=attitude | |
| Set 1 | F11, F12, F13,... F1m | B11, B12, B13,... B1m | A11, A12, A13,..., A1m | Product 1 |
| Set 2 | F21, F22, F23,... F2m | B21, B22, B23,... B2m | A21, A22, A23,... A2m | Product 2 |
| Set 3 | F31, F32, F33,... F3m | B31, B32, B33,... B3m | A31, A32, A33,... A3m | Product 3 |
| ... | | | | ... |
| SET z | Fz1, Fz2, Fz3,...Fzm | Bz1, Bz2, Bz3,...Bzm | Az1, Az2, Az3,... Azm | Product Z1 ^{^x} |

[^]B may or may not be similar to A as there may or may not be magnitude difference and so on it's similar for B by A, by magnitude. Correspondence between variables is valid but always with a provision with difference in magnitude indeed.

^{^x} it is noted that Z1 has to be in no relation with Z in the study so used, symbolically.

Summary of the study

- Understanding value system in behavior continuum (what is inter-stage phenomenon in the continuum?).
- Taking any two stage and their inter-relationship (what to select on and by what basis?).
- Degree of convergence by procedural and phenomenal (how does a stage get formed in continuum?).
- Best trajectory determination for a stage to travel across its own zone and beyond (what is kind of stage formed by magnitude?).
- Possibility descriptions of off-the-mark cases to evolution of proposition (what is viability standard of intersection point of one stage to another stage?).
- Stage-specific deliberations leading to entirety formation of continuum (how is a behavior flexible to changes?).

- Description of falling a gainful stage (what could be kinetics lying in falling gradient of a stage and its deliberations?).
- Interpretation of gradient on procedural and phenomenal (When does falling gradient happen to occur –before, during or after procedural/phenomenal?).
- Descriptions of procedural and phenomenal about their individuality and universality (what might be effects by levels of conjugation?)
- Mathematical model preparation of understanding falling gradient of a gainful stage (how a better precautionary measure does a model provide?).
- Set of propositions by varying degree of continuum stages under consideration (how could “creative” product/service be determined by possibly fluctuating and varying nature of stages in continuum?).
- Implication discussion of the study to other stages well upto stage ‘behavior’ (what if the methodology is applied on various stages in behavior continuum?).

RESULTS AND DISCUSSION

Insight about interaction between stages of behavior process has been analyzed and determined with proposition outcomes given in Table 2. This study could be a paradigm one of the kinds, to have the innovation exploration knowledge with its clear associated perspectives to how to determine inter-relational facts/changes on formation of the behavioral stages.

This study has found that the formation and existence of each stage in behavior process needs to be in Fourier series of sequential cyclic process as discussed. This would bring in further research scope to the study as well.

With a simple assumption of F to be a first step than B in a marketing process to behavior stage, the methodology of study describes a universal approach that could well apply to any other stages as required as applicable to a behavioral process attainment.

Stage-specific promotional programmes in marketing would be possible to be enhanced and served to achieve the desired selling objective of the behavior’s stage (Figure 6, Figure 14).

Completely new propositions by feature and all could be generated and manufactured based on suitably provided intensity of the stage-specific enhancements.

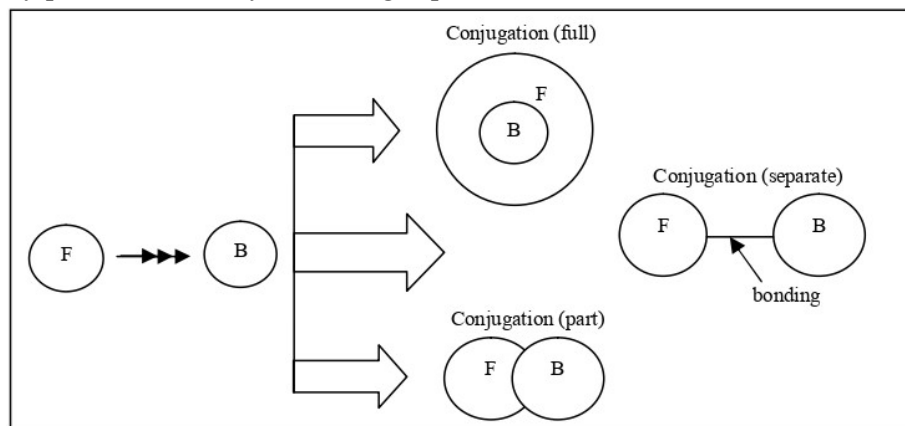


Figure 22: Kinds Of Conjugation

Variety in a product class or line may be obtained by varying relatedness into corresponding stages (please see Table 10). For example, F₁₁ to B₁₁ to A₁₁.

Each stage attainment must hold its own functional expression of which functional variables may not be similar across the stages or stage attainments. So, there are un-ending scopes (say z-th set of evolution) to product innovation in consumer marketing.

Other introspections –

- Attainment level may get subjections by sufficiency. Such subjections may include various interferences or causations or frictions etc^{[39], [40], [41]} which might bifurcate or decelerate or make otherwise distributions into attainment levels – it ultimately may deviate from the one which is desired or to the one which is not expected.
- ***Conjugation***
It is inter-bonding of stages in subsequence. It is the term hereby coined first, in this study. As a stage from its preceding state goes to succeeding stages, it must experience happening of lots of sub-stages (Figure 10) that may be instantaneous or so, owing to attachment in subsequence along the continuum gradient. This attachment is termed by conjugation in the study. Details are hereby given in Annexure 1, as linked to Figure 22. So, physical property of LZ is hereby given by Conjugation and mathematical expression of it is given by 16 possibilities as described earlier (Figure 10, Figure 21.3).
- Issues^{[42], [43]} might get enhanced more on the issue of actual path and measured path of attainment trajectory. Moreover, human psychology which is often reckoned by accountability or standard in any marketing business needs to be ordained with better precision by removing several issues^{[44], [45]}.

CONCLUSIONS

Behavioral stages could be well examined and separately determined by considering nature of variables (that is, stages) suitably as applicable to the determination as expresses by Eq.1. Post-belief pattern in marketing could be explained by decline nature of curve in the relation between F and B.

Fourier series is to be the best application of repetitive and continuous nature of increase and decrease of stages of behavior continuum. It is found that relation between F and B happens through ups and downs in a marketing communication with an intensity or a magnitude till desired altitude to the value (desired by marketer) is attained. This journey of fluctuations is concluded to be in Fourier series as there are evidences found by the study's methodology.

The study has described its methodology by a basic assumption that F gets completed and automatically starts to form into B in a behavioral process; where B be the next level in the behavior continuum after F.

Intercept (C value) could play significant role in formulating relational status depending on relative increase or decrease in the behavior continuum.

The study's finding, Appendix 1d, could be modelled into real-time software to verify and determine efficacy and level, of pursuit of a marketing communication.

Increase or decrease of belief may or may not be to proportionate increase or decrease of feeling. It's vice-versa.

Theoretically the considered basic assumption serves as its backbone of validity - increase in belief may not necessarily signify that only increase in feeling would happen.

An increase in belief may occur due to decrease in feeling. Here lies conceptual understanding that B only happens once F gets fully completed by the effects of increase or decrease independently.

LZ is the concept that defines a status of or an improvement over stage definition by level attainment. So long as a stage stays with lowest degree of attainment, during ladder up on LZ, can be assumed as belonging to the stage itself and thought of as no improvement has yet taken place into the concerned stage also.

Table 11 shows this that may be helpful to understand the methodology modeling of the study by all its given perspectives.

Other introspections -

It might be a new age revolutionary perception of subject to the study as well which is conspirational beliefs^{[46], [47]} and this is like others of attributed natures of human psychology that an attainment level with its expected outcome should be obtained, at its best possibility, through a defined and well-channelized regime of sensory flows – it finds to be a needful one while an objective is highly given priority to be fulfilled^[48].

There might be various measures against such interferences or actions or reactions that might bifurcate or disturb an acquisition of attainment level^{[49], [50]}.

Besides having a guiding provision over belief system^[51], there could be various receptors of utilizing such attainment level outcome. Some receptors are on the end (to give feedback) and some are at the subject level^{[52], [53]}. Also, socio-political sector is not to be out of such^[54 to 57].

As cognitive psychology is related with stages of early childhood and its psychology development, so it's a concern to parental duty or parentage to their children's status^{[58], [59]}.

Future scopes of the study

Followings may be the prospective insights of the study as well –

Presence (or existence) of Fourier Series Function

In this study, two members, B and F, have been experimented theoretically where number of curves is found to be present to definition of sine or cosine or else nature so as to create or constitute a curve trajectory combined of such numerous curves. This trajectory resembles like a fourier series function to be valid one for this analysis.

This study has presented such fourier series trajectory only for two considered members (B and F) in an entire behavior continuum. So, it is proved that each member should follow a fourier function in attaining its satisfactory and matured magnitude where degree of maturity or satisfaction must be a certain magnitude instead of infinity indeed.

It is hereby mentioned that fourier series function usually consists of in a combination variety of curves of the nature of sine, cosine waves, of mathematical interest.

Table 7: Resulting effect on ADP determination

| Sl. | Fundamentals | | Conditionals | | ADP (Yes/No) |
|-----|--------------|-----------------|--------------|---------|-----------------|
| | Base | Sub-Base | F Base | B Base | |
| 1 | Spaced | Equi-spaced | Fixed | Varying | Yes ADP |
| 2 | | | Varying | Fixed | Yes ADP |
| 3 | | | Fixed | Fixed | No ADP |
| 4 | | | Varying | Varying | Yes ADP |
| 5 | | Non-equi-spaced | Fixed | Varying | Yes ADP |
| 6 | | | Varying | Fixed | Yes ADP |
| 7 | | | Fixed | Fixed | No ADP |
| 8 | | | Varying | Varying | Yes ADP |
| 9 | Gradient | Identical | Fixed | Varying | Yes ADP |
| 10 | | | Varying | Fixed | Yes ADP |
| 11 | | | Fixed | Fixed | No ADP |
| 12 | | | Varying | Varying | Yes ADP |
| 13 | | Different | Fixed | Varying | Yes ADP |
| 14 | | | Varying | Fixed | Yes ADP |
| 15 | | | Fixed | Fixed | No ADP |
| 16 | | | Varying | Varying | Yes ADP |

Directional Dimension (Spatial)

Directional' way may be different for a stage to be at its positioning in a continuum (Figure 10) and it eventually depends on character and psychology of a human regarding information processing ability and/or demographic influences etc.

Of Attributions that may be coming in

Entire continuum needs to be treated as a system wherein stages are doing their own functions. Careful seriousness is highly deserved to have a continuum modeling with less frictions or correct inclusive standards (Table 7).

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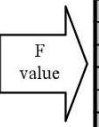
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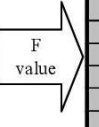
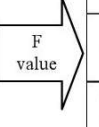
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APPENDIX 1

Appendix 1a: Determination of methodological F

| Level of B | Weightage, w | Final B (B at field) = B*w | Slope, θ degree | Magnitude of F | | | | | | | | | |
|------------|--------------|----------------------------|---|----------------|----|----|----|----|----|----|----|----|--|
| | | | | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | 90 | |
| 1 | 0.10 | 0.1 |  | | | | | | | | | | |
| 2 | 0.20 | 0.4 | | | | | | | | | | | |
| 3 | 0.30 | 0.9 | | | | | | | | | | | |
| 4 | 0.40 | 1.6 | | | | | | | | | | | |
| 5 | 0.50 | 2.5 | | | | | | | | | | | |
| 6 | 0.60 | 3.6 | | | | | | | | | | | |
| 7 | 0.70 | 4.9 | | | | | | | | | | | |
| 8 | 0.80 | 6.4 | | | | | | | | | | | |
| 9 | 0.90 | 8.1 | | | | | | | | | | | |
| 10 | 1.0 | 10.0 | | | | | | | | | | | |

Appendix 1b: Determination of methodological F (By Eq3)[^]

| Sl. | Final B (B at field) = B*w | Slope, θ degree (at field) | Magnitude of F = F at field | | | | | | | | | | | |
|-----|---------------------------------|---|-----------------------------|---------|---------|---------|---------|---------|---------|---------|---------|-------------------------|-------------------------|--------------------------|
| | | | 10 (a1) | 20 (a2) | 30 (t3) | 40 (t4) | 50 (t5) | 60 (t6) | 70 (t7) | 80 (t8) | 90 (t9) | W.A by B at field (WAB) | Avg. by B at field (AB) | Diff. by B at field (DB) |
| 1 | 0.1 (b1) |  | F1 | F2 | F3 | F4 | F5 | F6 | F7 | F8 | F9 | P1 | Q1 | d1=P1 - Q1 |
| 2 | 0.4 (b2) | | f2 | f21 | f31 | f41 | f51 | f61 | f71 | f81 | f91 | | | |
| 3 | 0.9 (b3) | | f3 | f22 | f32 | f42 | f52 | f62 | f72 | f82 | f92 | | | |
| 4 | 1.6 (b4) | | f4 | f23 | f33 | f43 | f53 | f63 | f73 | f83 | f93 | | | |
| 5 | 2.5 (b5) | | f5 | f24 | f34 | f44 | f54 | f64 | f74 | f84 | f94 | | | |
| 6 | 3.6 (b6) | | f6 | f25 | f35 | f45 | f55 | f65 | f75 | f85 | f95 | | | |
| 7 | 4.9 (b7) | | f7 | f26 | f36 | f46 | f56 | f66 | f76 | f86 | f96 | | | |
| 8 | 6.4 (b8) | | f8 | f27 | f37 | f47 | f57 | f67 | f77 | f87 | f97 | | | |
| 9 | 8.1 (b9) | | f9 | f28 | f38 | f48 | f58 | f68 | f78 | f88 | f98 | | | |
| 10 | 10.0 (b10) | | f10 | f29 | f39 | f49 | f59 | f69 | f79 | f89 | f99 | | | |
| 11 | W.A by θ at field (WAS) |  | P11 | P12 | P13 | P14 | P15 | P16 | P17 | P18 | P19 | | | |
| 12 | Avg. by θ at field (AS) | | Q11 | Q12 | Q13 | Q14 | Q15 | Q16 | Q17 | Q18 | Q19 | | | |
| 13 | Diff. by θ at field (DS) | | P11-Q11= d11 | d12 | d13 | d14 | d15 | d16 | d17 | d18 | d19 | | | |

[^]F means to value of Feeling.

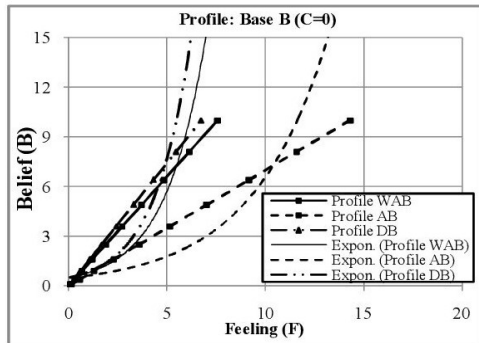
Appendix 1c: Calculation Methodology

| Sl. | F (at field) in terms of | | Calculation (Modeling Construction) |
|-----|--------------------------|--------------------------|--|
| 1 | Weighted Average (W.A) | W.A by B at field | $P1 = (F1*t1 + F2*t2 + F3*t3 + F4*t4 + F5*t5 + F6*t6 + F7*t7 + F8*t8 + F9*t9) \text{ divided by } (t1+t2+t3+t4+t5+t6+t7+t8+t9)$ |
| 2 | | W.A by θ at field | $P11 = (F1*b1 + f2*b2 + f3*b3 + f4*b4 + f5*b5 + f6*b6 + f7*b7 + f8*b8 + f9*b9 + f10*b10) \text{ divided by } (b1+b2+b3+b4+b5+b6+b7+b8+b9+b10)$ |
| 3 | Average (Avg.) | W.A by B at field | $Q1 = (F1+F2+F3+F4+F5+F6+F7+F8+F9) \text{ divided by } 9$ |
| 4 | | W.A by θ at field | $Q11 = (F1+f2+f3+f4+f5+f6+f7+f8+f9+f10) \text{ divided by } 10$ |
| 5 | Difference (Diff.) | W.A by B at field | $d1 = P1 - Q1$ |
| 6 | | W.A by θ at field | $d2 = P11 - Q11$ |

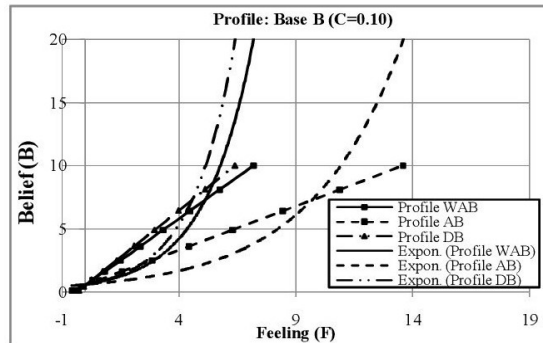
Appendix 1d: Continuum Model (Profiles)

| Sl. | Value of C | Regression | Regression determination with correlation coefficient | | | | | |
|-----|------------|-------------|---|----------------------|----------------------|------------------------------|--|---------------------------------|
| | | | x: Feeling (F); y: Belief (B) | | | x: Slope (θ); y: Feeling (F) | | |
| | | | with respect to Belief (B) | | | with respect to Slope (S) | | |
| | | | W.A by B (WAB) | AVG. by B (AB) | Difference by B (DB) | WA by Slope (WAS) | AVG. by Slope (AS) | Difference by Slope (DS) |
| 1 | C=0 | Exponential | $y = 0.492e0.489x$ | $y = 0.492e0.259x$ | $y = 0.492e0.549x$ | $y = 79.76e-0.05x$ | $y = 46.67e-0.05x$ | $y = 0.003x^2 + 0.501x - 18.06$ |
| | | | $R^2 = 0.746$ | $R^2 = 0.746$ | $R^2 = 0.746$ | $R^2 = 0.878$ | $R^2 = 0.878$ | $R^2 = 0.928$ |
| | | Linear | $y = 1.321x$ | $y = 0.698x$ | $y = 1.482x$ | $y = -0.372x + 28.31$ | $y = -0.218x + 16.56$ | $y = 0.154x - 11.74$ |
| | | | $R^2 = 1$ | $R^2 = 1$ | $R^2 = 1$ | $R^2 = 0.741$ | $R^2 = 0.741$ | $R^2 = 0.741$ |
| 2 | C=0.1 | Exponential | $y = 0.511e0.489x$ | $y = 0.511e0.259x$ | $y = 0.511e0.549x$ | $y = 80.34e-0.05x$ | $y = 46.49e-0.05x$ | $y = 0.003x^2 + 0.499x - 18.03$ |
| | | | $R^2 = 0.746$ | $R^2 = 0.746$ | $R^2 = 0.746$ | $R^2 = 0.878$ | $R^2 = 0.878$ | $R^2 = 0.929$ |
| | | Linear | $y = 1.321x + 0.1$ | $y = 0.698x + 0.1$ | $y = 1.482x + 0.1$ | $y = -0.363x + 27.21$ | $y = -0.210x + 15.75$ | $y = 0.153x - 11.46$ |
| | | | $R^2 = 1$ | $R^2 = 1$ | $R^2 = 1$ | $R^2 = 0.723$ | $R^2 = 0.723$ | $R^2 = 0.723$ |
| 3 | C=0.5 | Exponential | $y = 0.592e0.489x$ | $y = 0.592e0.259x$ | $y = 0.592e0.549x$ | $y = 75.38e-0.05x$ | $y = 41.53e-0.05x$ | $y = 0.003x^2 + 0.499x - 18.03$ |
| | | | $R^2 = 0.746$ | $R^2 = 0.746$ | $R^2 = 0.746$ | $R^2 = 0.878$ | $R^2 = 0.878$ | $R^2 = 0.929$ |
| | | Linear | $y = 1.321x + 0.5$ | $y = 0.698x + 0.5$ | $y = 1.482x + 0.5$ | $y = -0.340x + 25.53$ | $y = -0.187x + 14.07$ | $y = 0.153x - 11.46$ |
| | | | $R^2 = 1$ | $R^2 = 1$ | $R^2 = 1$ | $R^2 = 0.723$ | $R^2 = 0.723$ | $R^2 = 0.723$ |
| 4 | C=1 | Exponential | $y = 0.713e0.489x$ | $y = 0.713e0.259x$ | $y = 0.713e0.549x$ | $y = 69.18e-0.05x$ | $y = 35.33e-0.05x$ | $y = 0.003x^2 + 0.499x - 18.03$ |
| | | | $R^2 = 0.746$ | $R^2 = 0.746$ | $R^2 = 0.746$ | $R^2 = 0.878$ | $R^2 = 0.878$ | $R^2 = 0.929$ |
| | | Linear | $y = 1.321x + 1$ | $y = 0.698x + 1$ | $y = 1.482x + 1$ | $y = -0.312x + 23.43$ | $y = -0.159x + 11.97$ | $y = 0.153x - 11.46$ |
| | | | $R^2 = 1$ | $R^2 = 1$ | $R^2 = 1$ | $R^2 = 0.723$ | $R^2 = 0.723$ | $R^2 = 0.723$ |
| 5 | C=5 | Exponential | $y = 0.893e0.489x$ | $y = 1.283e0.259x$ | $y = 1.927e0.549x$ | $y = 40.34e-0.05x$ | $y = -0.003x^2 + 0.313x - 3.858$ (polynomial) | $y = 0.003x^2 + 0.499x - 18.03$ |
| | | | $R^2 = 0.746$ | $R^2 = 0.746$ | $R^2 = 0.746$ | $R^2 = 0.778$ | $R^2 = 0.281$ | $R^2 = 0.929$ |
| | | Linear | $y = 1.321x + 1.606$ | $y = 0.698x + 2.584$ | $y = 1.482x + 3.681$ | $y = -0.162x + 13.74$ | $y = -0.009x + 2.275$ | $y = 0.153x - 11.46$ |
| | | | $R^2 = 1$ | $R^2 = 1$ | $R^2 = 1$ | $R^2 = 0.807$ | $R^2 = 0.004$ | $R^2 = 0.723$ |
| 6 | C=10 | Exponential | $y = 20.02e-0.49x$ | $y = 20.02e-0.25x$ | $y = 20.02e-0.54x$ | $y = 42.40e-0.05x$ | $y = 76.25e-0.05x$ | $y = 33.85e-0.05x$ |
| | | | $R^2 = 0.746$ | $R^2 = 0.746$ | $R^2 = 0.746$ | $R^2 = 0.878$ | $R^2 = 0.878$ | $R^2 = 0.878$ |
| | | Linear | $y = -1.321x + 10$ | $y = -0.698x + 10$ | $y = -1.482x + 10$ | $y = -0.191x + 14.36$ | $y = -0.344x + 25.83$ | $y = -0.153x + 11.46$ |
| | | | $R^2 = 1$ | $R^2 = 1$ | $R^2 = 1$ | $R^2 = 0.723$ | $R^2 = 0.723$ | $R^2 = 0.723$ |

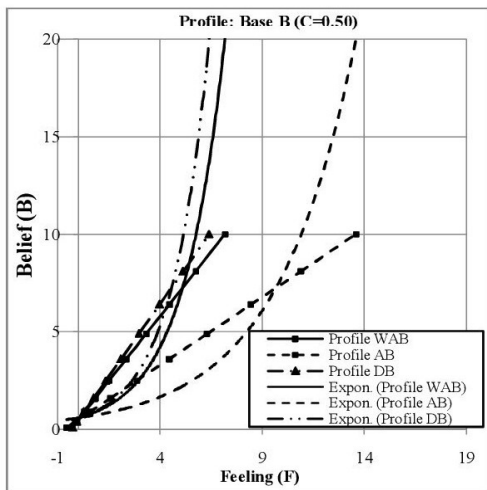
APPENDIX 2 (please see Appendix 1d)
(Modeling Profiles Of Continuum)



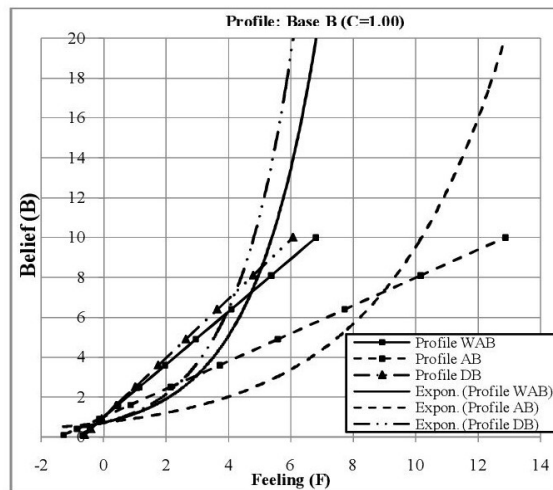
A.2.1: 'B' reference profile having C=0



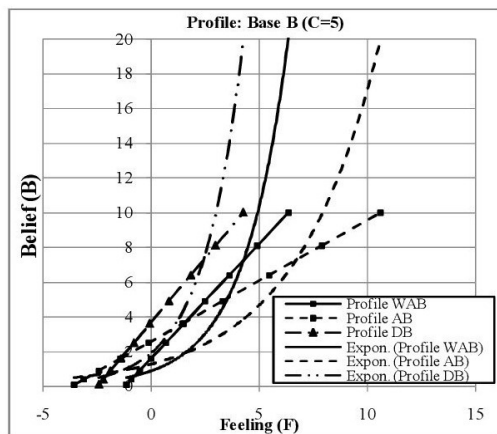
A.2.2: 'B' reference profile having C=0.10



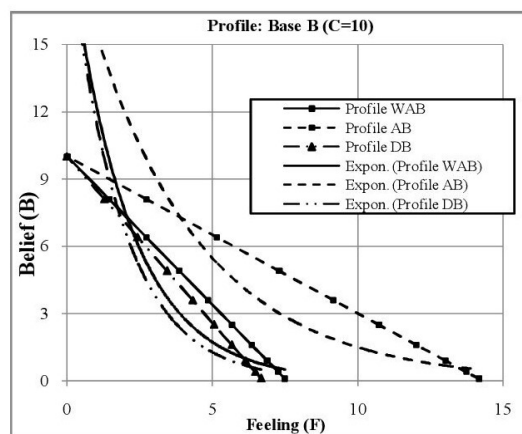
A.2.3: 'B' reference profile having C=0.50



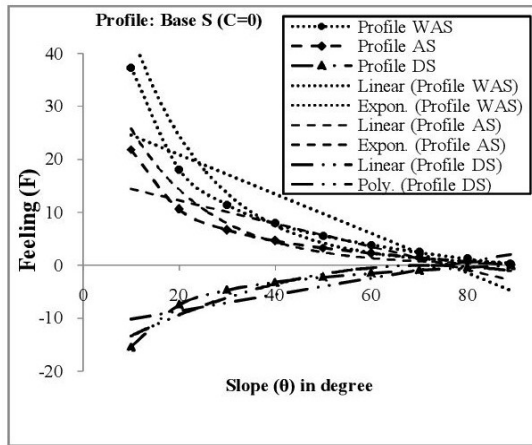
A.2.4: 'B' reference profile having C=1.00



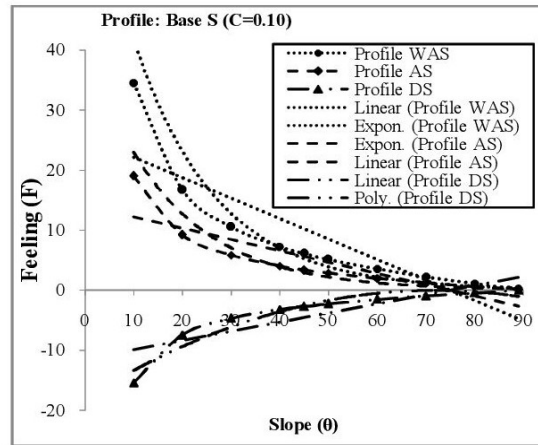
A.2.5: 'B' reference profile having C=5.0



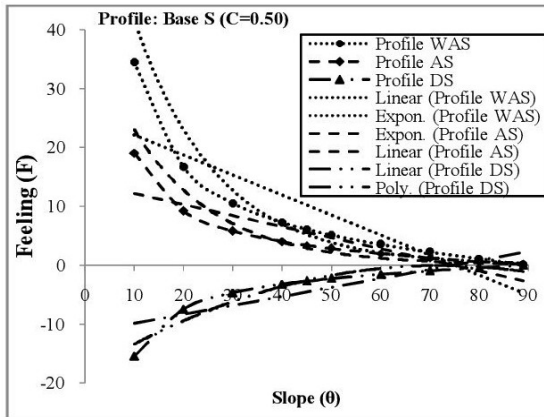
A.2.6: 'B' reference profile having C=10.0



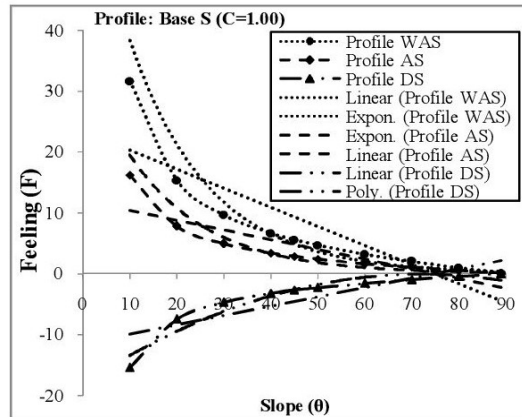
A.2.7: 'S' reference profile having C=0



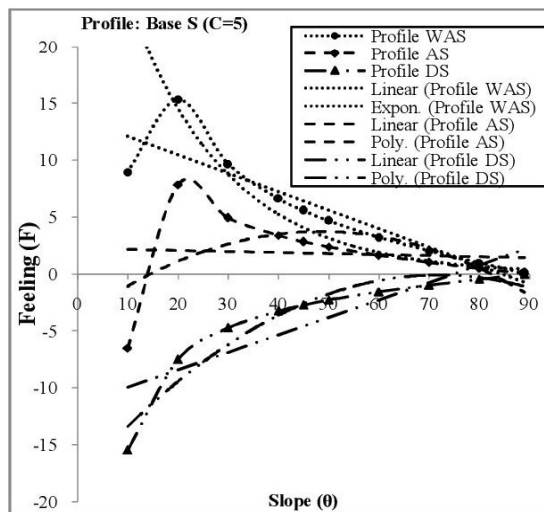
A.2.8: 'S' reference profile having C=0.10



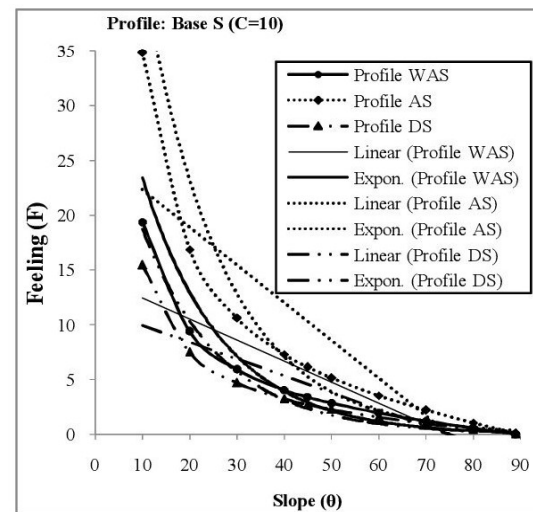
A.2.9: 'S' reference profile having C=0.50



A.2.10: 'S' reference profile having C=1.00



A.2.11: 'S' reference profile having C=5.0



A.2.12: 'S' reference profile having C=10.0

ANNEXURE 1: Conjugation Property Of Stage (Of Continuum)

As assumed earlier, a stage is said to be formed with LZ with complete fulfillment as explained by Eq. 1. The term “conjugation” may be related with or synonymous to LZ by definition. Also, conjugation as a property of stage-relationship might be more of LZ as to be an all-in-all demarcation on what a stage attainment should be. So, it is a unique physical property of LZ in addition to the concept of it as stage-attainment property (Figure 10, 17 and 22).

Term “immersion” is herein meant by degree of LZ in a given attainment. High immersion is for high degree of LZ and vice versa.

What is it (conjugate or conjugation)?

By literature meaning it is to be the property definitely. It indicates immersion of one stage into other stage. A degree of immersion should reflect the kind of conjugate. There should be two basic kinds to classify conjugation or conjugate - consumption, compensation (please see Table 1.1 and 1.2, given in following). Figure 22 is shown to represent what a conjugation is and how it can be thought of to be formed or considered.

What is Compensation?

It is not full or complete immersion during a stage attainment in the continuum. It happens on the time when a stage is said to be not fully utilized or involved into (by Eq. 1) LZ by incorporating several factors of it or LZ itself. The factors may be (in addition to involvement and interaction) on to others (kind of externalities) such as social, environmental, technological, political, economical, international effect if any, etc if not yet reckoned to, in part even, in ‘good’ completion.

Table 1.1: Conjugation (On LZ)[^]

| LZ direction towards behavioral attainment | Conjugation Types (Degree of involvement) | | |
|--|---|--|--|
| | Full Conjugation | Part Conjugation | Separate Conjugation |
| F to B | <ul style="list-style-type: none"> Feeling as attribute is fully satisfied in all respects and degrees of it. It is said to having matured itself in a proposition marketing, towards belief, in behavior continuum (Figure 1). | <ul style="list-style-type: none"> Feeling as attribute is partly satisfied in all respects and degrees of it. It is said to having non-matured itself in a proposition marketing, towards belief, in behavior continuum (Figure 1), except the merging portion shared by both. The merging portion could behave as full conjugation. | <ul style="list-style-type: none"> Feeling as attribute is not partly or fully satisfied in all respects and degrees of it. It is said to not only having non-matured itself in a proposition marketing, towards belief, in behavior continuum (Figure 1), but also level of reactivity or non-involvement status is significantly visible by distinct separation in between. Either F or B doesn't get involved in the behavior continuum or proposition marketing is of such level of efficacy that involvement level of F and B is not happening (partly/fully). |

[^] as assumed that belief (B) always succeeds feeling (F) and it is formed once feeling is satisfied totally (please see Figure 17).

What are the kinds of conjugate or conjugation?

Table 1.2 gives the kinds as to be classified by respective consumption and compensation.

Table 1.2: Conjugation Perspective On Stage Attainment[^]

| Sl | Relational Variability (Of Stage Attainment) ^{^^} | | | |
|----|--|--|--------------------|---|
| | Consumption | Description | Compensation | Description |
| 1 | Full Conjugate | <ul style="list-style-type: none"> Feeling as attribute is fully satisfied in all respects and degrees of it | Part Conjugate | <ul style="list-style-type: none"> Feeling as attribute is partly satisfied in all respects and degrees of it. It is said to having non-matured itself in a proposition marketing, towards belief, in behavior continuum, except the merging portion shared by both. The merging portion could behave as full conjugation. |
| 2 | | <ul style="list-style-type: none"> It is said to having matured itself in proposition marketing, towards belief, in behavior continuum. | Separate Conjugate | <ul style="list-style-type: none"> Feeling as attribute is not partly or fully satisfied in all respects and degrees of it. It is said to not only having non-matured itself in a proposition marketing, towards belief, in behavior continuum, but also level of reactivity or non-involvement status is significantly visible by distinct separation in between. Either F or B doesn't get involved in the behavior continuum or proposition marketing is of such level of efficacy that involvement level of F and B is not happening (partly/fully). |

[^] externalities must be in factorial inclusion always; in the study, B is the target stage of F by LZ (Figure 17).

^{^^} there are sixteen (16) possibilities found by the study that are considered to be followed by conjugation property.

What is Consumption?

It is the term to be used to indicate complete or full immersion during LZ operations. It reflects “full” residence of one stage into other stage, as a result of stage attainment. There could be more than one stage (of preceding concern) in other stage. There is no part left of one stage of concern, after the immersion, that can be taken as a further thing for compensation or consumption. So, the term “consumption” is herein to be meant as full immersion or complete consumption in all.

What is Full Conjugation?

It is the conjugate after complete consumption over the immersion is done. It can be experienced or happened to see this kind of conjugation into every kind of 16 possibilities.

Assumptions:

Full conjugate may be better experienced in any of 32 cases (Table 8), irrespective of LZ components.

Immersion is always accounted of by LZ, ADP, etc as described.

Framework and Fundamental is to be valid always.

What is Part Conjugation?

It is the conjugation in part between two subsequent stages in an attainment. Here, stages get involved to in part but not in full or completely, although a stage like B, in F to B, can get formed over such part immersion. Various factors are in accordance to such kind of immersion regarding their use, applicability, etc. The study has found this kind in to following conditionals - Conditional (B variable F fixed), Conditional (B variable, F variable).

Assumptions:

Part conjugate may be better experienced in any of 32 cases (Table 8), irrespective of LZ components.

Immersion is always accounted of by LZ, ADP, etc.

Framework and Fundamental is to be valid always.

What is Separate Conjugation?

This kind of conjugate defines to individualism or immersion taking place without (much!) intermediaries. Here, bonding strength may be found as not having attached by so intensely during the bonding process. So, various attributions and their attachments are not here to be in existence as like earlier kinds of conjugation.

It is thereforth the conjugate which gets formed by individual potential of stage, rather than their interaction magnitude.

Assumptions:

Separate conjugate may be better experienced in any of 32 cases (Table 8), irrespective of LZ components.

Immersion is always accounted of by LZ, ADP, etc. where interaction by term so used in the study is to be negligible and does only exist as an unaccountable function/mechanism only to cause to occur the attainment.

Framework and Fundamental is to be valid always.

The salient features are, on entirety of this present paper, are to be as -

Various externalities, as subjection onto behavioral field of study, may or may not prevail always.

Interaction as given by Eq. 1 may not prevail or exist always, as assumption of this study.

Involvement must or should exist always as the study's assu