

Managing Pains of Rapid University Growth in an Emerging Economy

by

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Abstract

Growth is essential to development. But, when its pace is fast, a whole range of problems such as human resources, managerial control and finance and information technology can result. Besides, when development is jettisoned primarily by volumetric expansion rather than innovation and operational excellence, the organization will certainly experience growth pains. This paper attempts to fill gaps in studies on growth pains of rapid growing universities in emerging economies. This action-based research work seeks to analyze rapid growth at a higher educational institution, delineate its structural and change characteristics using growth models of Larry Greiner and Churchill and Lewis as framework guide. The main findings of research are that the organization has almost gone through the creativity phase and is ending approaching the point of leadership crisis. On the basis of research findings, a number of recommendations have been made which have to be taken as a matter of urgency. These include management, human resources, financial and marketing related strategies.

Keywords: Growth, Growth Model, Managing Change, University

Introduction

Rapid-growth companies play important role in local and international economies. Managers strive to manage their growth processes and attendant challenges with the view to sustain competitive advantage during the different phases of growth. Research analyse rapid-growth companies including high-technology and low-technology firms and how they adopted management practices to build the necessary entrepreneurial capacity to sustain growth (Garney et al., 2006; Louvion & Martens, 2006; Packham, 2005; MacPherson et al., 2004). However, little or no research focuses on educational organisation per se. Robert Lowe's (2002) case studies focus on university-based start-up firms, but not universities start-ups themselves. The key aspect of his finding was that technology was transferred into universities from corporate laboratories rather than the other way round.

The aim of this paper is to review an unfolding developmental process and attendant challenges of the American University of Nigeria (AUN), a private university institution (Botchway, 2010) based on the phase and stage models of Larry Greiner (1972), and Churchill and Lewis (1983). The five key questions of research conducted in 2009 included: a) How can university growth be measured? b) How

is leadership crises related to growth? c) What environmental risks and threats emanate from growth? d) What are the management style and impact? and; e) What are the growth challenges and opportunities?

On the basis of the Life Cycle development model used in this study, two main propositions can be drawn. First, when management holds their grip on operations, there will be little or no: a) delegation and decentralization of operations; b) use of teams and collaboration systems, and; c) formalization of transactions and operations. Second, there is no significant difference in the perceptions of staff/tutors and management with reference to: a) concerns about organizational success; b) concerns about maturity, and; c) formalization of transactions and operations as the institution grows. These propositions are examined in the light of data on the growth paths of the educational institution. Further analysis including an aggregate comparison of the institution with other institutions' growth paths and organizational challenges is envisaged. Structurally, this paper includes a review relevant literature or organizational growth and related models, research methodology, industry and company background, findings and discussion, and conclusion and recommendations.

Review of Literature

Salmi (2010) lists ten errors of building a world-class university. The list includes: a) too much emphasis on infrastructure and little forward planning; b) late curriculum development; c) concept importation or replication; d) poor leadership and lack of team building; e) cronyism at board/governors level; f) poor costing, financial and sustainability planning; g) over-ambitious enrollment targets; h) impatience; i) poor capacity planning and imbalance in local-foreign academics mix. The problems are noteworthy, but are neither listed according to hierarchy of importance, nor attributable to a particular stage in institutional growth. University growth and impact on the environment is described by Kravits' (2010) report on American University's (Washington DC) commercial/financial growth at loggerheads with the immediate property business and Stent's (1978) research on Brazilian universities' growth impact on labour market and politics.

Railsback (2007) describes using organisational life cycle framework a 'long and delayed childhood' of George Fox University and its rapid growth in the late 1980s due mainly to a) the entrepreneurial style of the president; b) new marketing and recruitment strategies; c) development of new undergraduate and graduate programmes, and; d) mergers and acquisitions.

In the main, two approaches to analysis of rapid-growth of organisations can be identified. These include the *Life Cycle* perspective which sees growth as a natural evolutionary phenomenon and the *Strategic* perspective which sees growth as a consequence of choice.

Rapid-growth process entails fast short term increases in areas such as sales, volume or productivity, people, and costs. Sudden changes can evoke side effects that risk company's profitability and future prospects. The sources of change are both external and internal. The former includes competitors, suppliers, customers, the labor force, the prevailing economic climate, and the legal environment. The internal sources of change exists within the organization itself and includes shifts in workers' attitudes, declines in productivity, and changes in key personnel. Rapid-growth usually requires detailed planning, reinforcement of objectives and organization-wide transition. The skills and capability for early awareness and management of rapid growth and its side effects are crucial.

Mintzberg (1978) and Flamholz (1990) are representatives of the *Strategic* choice perspective to firms' growth. Mintzberg (1978:72) notes the impact of evolutionary change on strategies, structures, and culture. He states: ".....long period of evolutionary change is suddenly punctuated by a brief bout of revolutionary turmoil in which the organization quickly alters many of its established patterns. In effect, it tries to leap to a new stability quickly to re-establish an integrated posture among a new set of strategies, structures, and culture". Mintzberg's (1983) typology of structural forms indicates structures shift during organisations' lifespan. The differences in the structural forms are determined by the coordinating mechanisms, location of power, flow of authority and decision making and extent of formalization and specialization. It follows that although hybrid forms are possible, turbulence and contradiction is to be expected as organizations shift away from one particular form towards another, even if the process of change is a deliberate one.

Flamholtz (1990) noted that organization structures and managerial competences are required when small, entrepreneur-driven businesses grow into larger, professionally-managed ones. He argues that strategic planning in younger and smaller companies tends to be based either on personal feel or intuition, or on fire fighting approaches. Such organizations will undergo a great deal of pain and distress unless those in the strategic apex learn to adopt rational and systematic approaches to strategic decision making and organizational redesign as their organization grows (Vechhio, 2006:367; Vic, 2007).

Greiner (1972), Churchill and Lewis (1983), Scott and Bruce (1987), Kazanjian (1988), and Garnsey (1996) epitomise the *Life Cycle* perspective. The traditional linear models of Greiner (1972), and Churchill and Lewis (1983) which consider conceptualize firms' growth as a sequence of growth stages through which all companies advance (Gorman & McCarthy; 2000). Greiner's (1972) model, one of the earliest growth models identifies five stages (now six) or phases of growth.

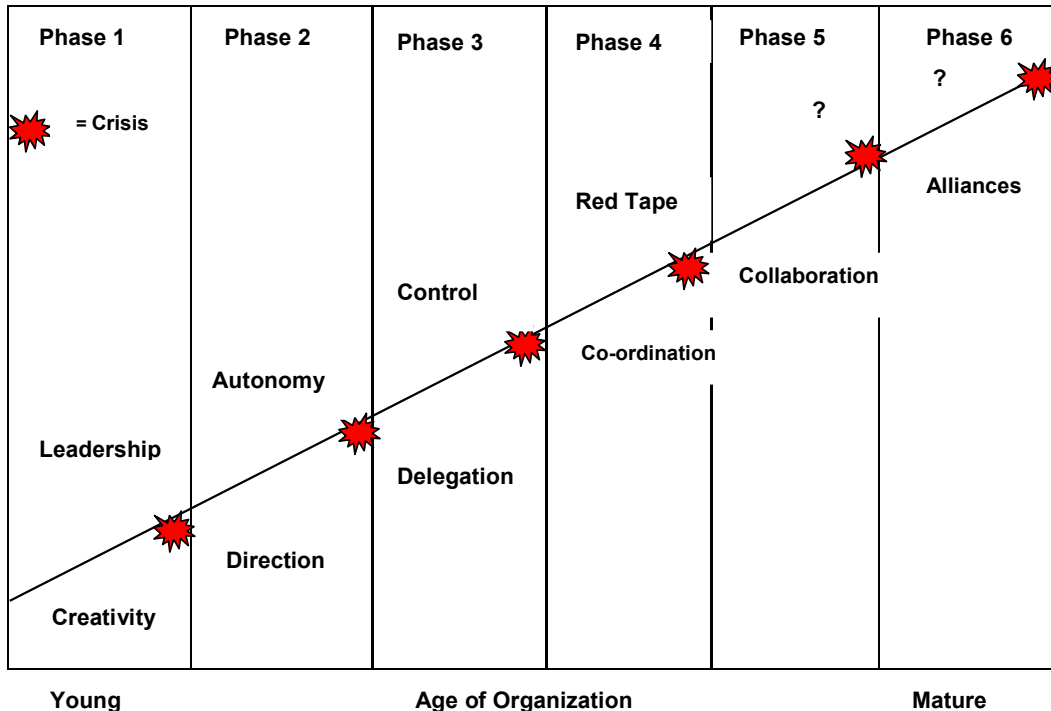
Greiner (1972) argues that growing organizations move through five (now revised to include a 6th phase) relatively calm periods of evolution, each of which ends with a period of crisis and revolution (Figure 1). Each *evolutionary* period is characterized by the dominant management style used to achieve growth. The corresponding *revolutionary* period is characterized by dominant management problem that must be solved before growth will continue. To make a successful transition and evolve from one stage to the next, Greiner argues that an organization must overcome a '*crisis*' in management. Since, the word '*crisis*' normally connotes a negative turning point, we may substitute this for '*transition*'.

The five phases of growth and the matching crisis of the model include: a) Creativity/Leadership; b) Direction/autonomy; c) Delegation/control; d) Coordination/red tape, and; e) Collaboration/crisis undetermined.

Phase 1 Creativity / Leadership: Founders of the organization dominate this phase. Their main emphasis is on creating both a product and finding a market and are usually more focused on technical and entrepreneurial activities than management ones. They put all their efforts in making and selling a new product. Management problems occur when the organization starts to grow. These cannot be handled through informal communication and dedication. Thus, founders could find themselves carrying unwanted management responsibilities. In this phase, a crisis of leadership occurs and the first revolutionary period begins. There is a need to solve management problems by finding or locating a

good and capable manager who can pull the organization together. This leads to the next evolutionary period called *direction*.

Phase 2 Direction / Autonomy: During this phase, the new manager and key staff need to focus on instituting direction, while lower level supervisors are treated more as functional specialists than autonomous decision-making managers. Lower level managers demand more autonomy and this eventually leads to the next revolutionary period - the crisis of *autonomy* and the best solution to this is usually greater delegation.



Source: Greiner, L. (1972)

Figure 1 Greiner Growth Phase Model

Phase 3 Delegation / Control: During this phase managers give up responsibility. But lower level managers are not accustomed to making decisions for them. As a result many organizations flounder during this revolutionary period of delegation and the organization usually begins to develop a decentralized structure company-wide which drives motivation at the lower levels. The next crisis begins when top managers perceive they would lose control over a highly diversified field of operation. The crisis of control often results in a return to centralization, which could be inappropriate and can create as a result a negative feeling among those who had lost influence.

Phase 4 Coordination / Red Tape: This phase is characterized by the use of formal systems to achieve greater coordination by top management. Often, coordination systems eventually get carried away and this leads to the next revolutionary stage - the crisis of *Red Tape*. This crisis must often occur when the organization has become too large and complex to be managed through format programs and rigid systems.

Phase 5 Collaboration /?: This phase begins just after the company has managed to overcome the crisis of *Red-Tape*. While the coordination phase was managed through formal systems and procedures, the collaboration phase emphasizes a major spontaneity in management actions through teams and the skillful management of interpersonal differences. Initially, Greiner was not certain about the next revolution stage. But, he indicates this would centre on 'psychological saturation' caused by an exhausted intensity of teamwork and the heavy pressure for innovative solutions.

Phase 6 Extra-Organizational Solutions: This recently added sixth phase suggests that growth may continue through merger, outsourcing, networks and other solutions involving other companies. Growth rates will vary between and even within the phases. The duration of each phase depends almost totally on the rate of growth of the market in which the organization operates. The longer a phase lasts, though, the harder it would be to implement a transition. Churchill and Lewis (1983) identified five stages of small business growth namely, existence, survival, success, take-off and resource maturity.

Stage I Existence: The company is alive and in its simplest format to start with research of customers and develops if appropriate new or better suppliers. Management in this stage is directly supervised by the owner(s). The company is vulnerable to failure if there is inadequate management of the above-mentioned issues.

Stage II Survival: The organization at this stage has managed thanks substantial customer stock to remain active. Special focus is on financial items like cash flow, profitability and assets. The organisational structure is usually the same as in the *existence* stage. The owner(s) is/are still capable to supervise the business directly. Some organizations start to enjoy high demand of their products or services. Their goal is to satisfy new customers using existing resources. Survival and growth are the overarching aims.

Stage III Success: At this stage, the organization has two main orientations: invest success dividends for further growth, or enjoy or spend the wealth accrued, or 'disengage' from the business. Disengagement is a sub-stage in which the organisation enjoys profitable and stable business: customers' demand is satisfied and market penetration is substantial. The organization grows and there is the need to engage more people in order to operate successfully. Owners have to start to delegate responsibilities. Some organizations stay on long term in this *disengagement* sub-stage. But, this depends on how large the market segment is. Financial health and growth capabilities are characteristics. An extension on original strategic plan is necessary and the organizational structure required here is basically the same as in the first sub-stage: more people and delegation of responsibilities. If everything works well, then the organization is ready to proceed to the next stage.

Stage IV Take Off: Churchill and Lewis consider this fourth stage as very important in every company's life cycle. The main issues in this stage are management of rapid-growth and how to finance it. They company would enjoy a positive and healthy growth if both issues are controlled and managed. At this

stage cash flow should be an existent commodity and the costs must be kept under control. A company at this point is very vulnerable to failure. If growth comes too fast, the company runs out of cash and owners loose total control, the company may go out of existence. Managers who are competitive would succeed in this stage.

Stage V Maturity: This last stage focuses on desirable management skills to consolidate and control profits. Business reviews and flexible business plans are deemed necessary. Growth is not presumed in this model. However, Churchil and Lewis used a much broader set of measures including firm's size, complexity and diversity with the view to address some of the shortcomings associated with Greiner's model which is limited only to small and growing firms. The model focuses largely on internal organizational issues. Scott and Bruce (1987) extended the model to include managerial and industry issues.

The growth models suggest that in order to make organisations continue to grow beyond a certain point entrepreneurs or managers must be prepared either to change their values-in-use about organizing so as to match these to the life-stage of their companies. Else, they must be prepared to face premature stagnation, decline and perhaps death. The models are descriptive and help to understand why certain management styles, organizational structures and coordination mechanisms work or fail at certain phases in the development of an organization. Hizon and Bronson (2004) used the growth model to analyse strategies of innovative technology adoption at certain growth phases of organisations' life cycle. Feindt, Jeffcoate and Chappell's (2002) work identified critical success factors for rapid growth in SMEs' e-Commerce.

The stage models have been criticised, because of the following presumptions that: all firms pass through the same sequence of phases; measures firm's size only in terms of annual sales and number of employees, and; early stage or start-up phase of a firm is automatic. Greiner's model focuses less on knowledge-based businesses. Generally, the growth models do not emphasize on internal organizational issues and how organization structure must change and adapt from one stage to the next. Storey (1994) criticises the models for being merely descriptive rather than predictive. He suggests that three critical and interrelated factors need to be considered in order to gain proper understanding of small firms' growth namely, the background and resources of the entrepreneur, the nature of the firm itself, and the strategic decisions taken the owner/manager. Also, Garnsey (1996) is of the view that greater emphasis need to be placed on role and impact of external environment and stakeholders when explaining a firm's growth process. Despite, their imperfections, the phase model of Churchill and Lewis offers management analyst "the ability to foretell what is going to happen tomorrow, next week, next month, and next year - and the ability afterwards to explain why it didn't happen" (Churchill & Lewis, 1983:49).

Methodology and Techniques

The rationale for this action-based research (Somekh, 1995:34) is four-fold: *practical* in that this work deals with a real-world issue in an educational organization settings; *change* is required as an integral part of this research; the *cyclical process* of this work involves feedback loop in which the original findings will generate possibilities for change in the organization, and *participatory* in that the author was active and not passive in this research work (Denscombe, 2004:73-74). The research approach has several advantages in that it contributed to professional self-development of the author and

offered a good opportunity for resolving practical issues and problems of organisation growth in an educational institution. However, this action research suffers the limitations of scope and scale required for making generalizations, feasibility of exercising controls over factors of relevance to research and adopting a wholly impartial approach to research (Susman & Evered, 1978).

A stratified sampling technique was used to select respondents. The sample population is 33 or 17% of total population N=193. Two main respondent groups- 26 (78.7%) academics and staff, and 7 (21.3%) managers- were interviewed after a semi-structured pilot survey. The feedback was integrated into a semi-structured questionnaire. Likert-scale questionnaire statements devised focused on three key issues namely, the description of rate of organizational growth, organizational concerns, and perception about management styles and approaches. Besides, other triangulation techniques including observation, focus group discussions and documents were used to enhance validity of data. The questionnaire tool was economical and easy to complete by respondents, code and process. However, some respondent might have perceived that it provided little opportunity for making further comments to the questionnaire statements.

Although several measures were undertaken to increase reliability and validity of research, readers need to be cautious drawing generalized conclusions based solely on this work. Basically, the limitations of the research methodology are four-fold: the generality of the findings; small, but statistically valid sample size 33 respondents; partial organizational perspective based on a single case study, and; limited coverage of study (other educational institutions could have been included).

Background to Education Industry and Institution

Higher education in the Country area embraces all institutions that provide post-secondary education leading to the award of degrees, certificates and diplomas. Currently, there are 53 universities, 41 polytechnics, and 62 colleges of education. The universities include 41 conventional universities, 9 technological universities and 3 agricultural universities which provide teaching, research and development and community services.

Despite substantial increases in the number of institutions, demand for university education in recent years far exceeds supply. Also, there has been considerable increase in the number of private university establishments. This is mainly due liberalization and expansion of higher education provision. Private sector participation shows that higher education cannot be financed solely by the government, and that other forms of provision are required to augment dwindling resources yearly earmarked for higher education through government efforts. Majority of the private universities are joint-venture partnerships owned and financed by religious and corporate organizations. Students' enrollment continues to increase in line with demographic trend. However, the number of academic staff has not kept pace with such increase: the result has been a significant deterioration of student-academic staff ratios. The majority of universities have begun to develop collaboration networks with the view to supplement income and support growth.

AUN was founded in 2004 as an international private institution with its academic programmes built on models of national and international accreditation standards. The institution has created opportunity for 2,000 students (2007) during its short lifetime. The continuous increase in enrollment and rapid organic growth has created the need for better structures, management styles and approaches.

Table 1 is a SWOT analysis of AUN. It delineates strengths and opportunities which the institution could take advantage of, weaknesses which could be managed and the threats which could be eliminated or otherwise confront the institution at unawares.

Table 1 SWOT Analysis

Strengths	Weaknesses
<ul style="list-style-type: none"> • Achieved accreditations. • ‘Best of two worlds’ – Nigerian cum American Higher Education systems. • Dynamic and growing institution. • Supportive AUN community. • Credible and career-oriented programmes. • Highly qualified and dedicated national and international faculty. • Safe learning environment. • State-of-the-art physical facilities and ICT enabler. 	<ul style="list-style-type: none"> • Unique niche (teaching, research and service). • Inadequate faculty to meet growth needs. • Narrow programmes. • Inadequate knowledge of market. • Limited assessment of learning outcomes. • Space (offices and classrooms) limitations. • Construction work-in-progress. • Lack of strategy focus.
Opportunities	Threats
<ul style="list-style-type: none"> • Increased demand. • Growth in quality and number of enrollments. • External relations. • Funds and grants. • Distinct niche (teaching, research and service). • Continuous improvement. 	<ul style="list-style-type: none"> • Pains of growth. • Increased competition. • Shortage of academic staff. • Reduced funds and grants. • Volatile political climate. • Other risks and uncertainties.

Results and Discussion

The Cronbach (1951) Alpha ($\alpha = 0.70$) showed high internal consistency and reliability of the questionnaire model employed. The response rate was 100%. Figure 2 indicates a general slight variation in responses to the questionnaire statements. For example, the standard deviations around the mean responses for growth in number of degree programs and number of students enrolled yearly were relatively small ($\sigma = 0.8$).

Rate of Growth: Perceptual measures about the rate of growth at AUN covered six areas of business process: a) number of degree programs; b) number of published research; c) number of students enrolled yearly; d) capacities of physical planning and design; e) cost of campus site maintenance, and; f) instructor-student ratio. These areas were seen to be vital measures of performance.

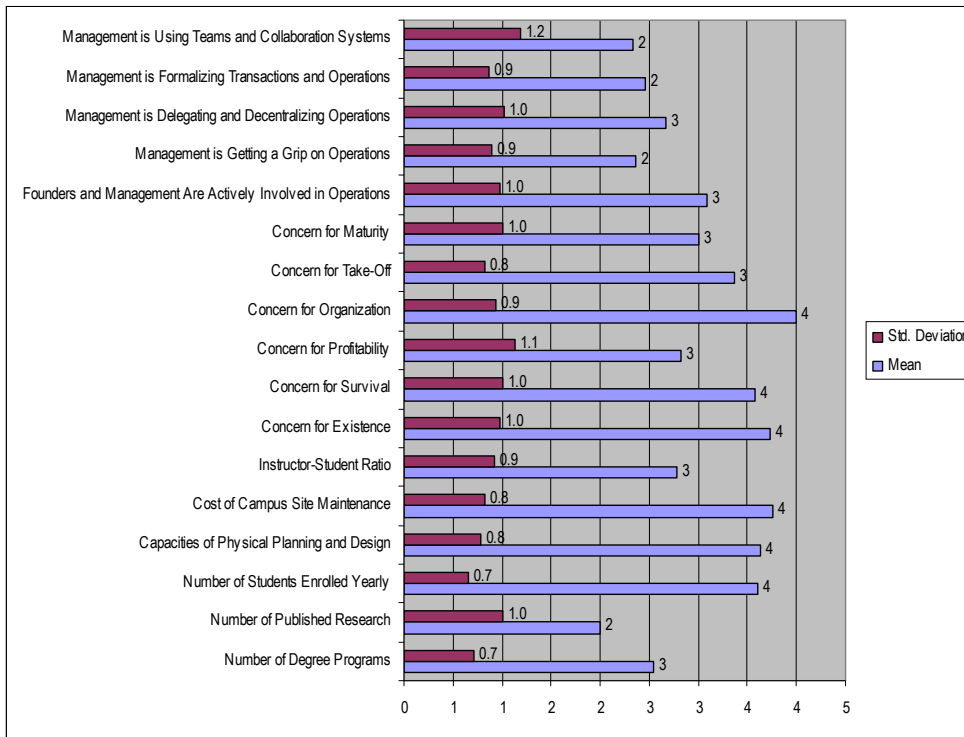


Figure 2 Descriptive Statistics

As shown in Figure 3 , growth in terms of costs of campus site maintenance (18.2%), capacity expansion of physical planning and design (12.1%) and number of students enrolled yearly (3%) have been rapid to extremely rapid. These developments contrast markedly with the very slow pace of growth in the areas of published research output (36%), instructor-student ratio (9.1%) and number of degree programs on offer (9.1%).

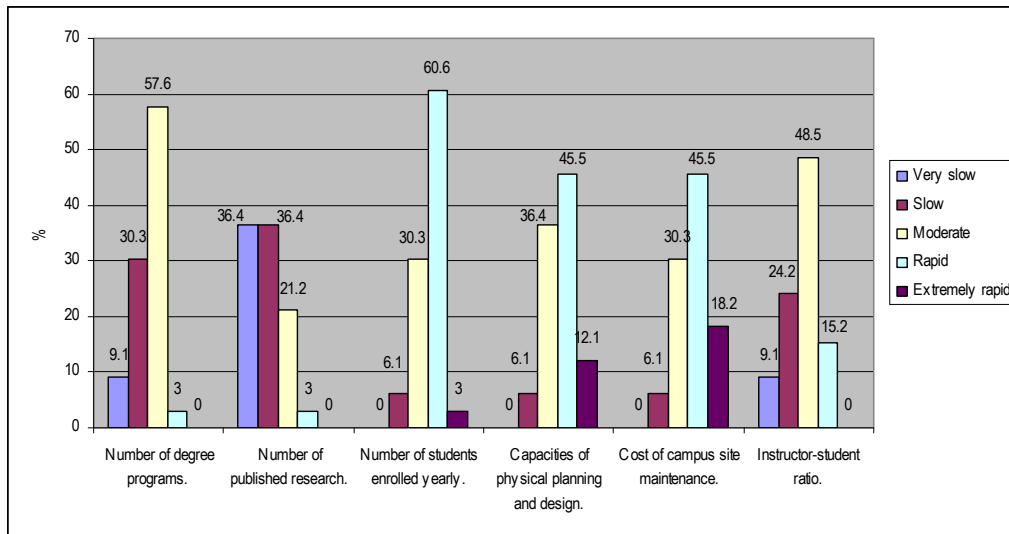


Figure 3 Rate of Growth

The very slow growth rate of research publication output can be inferred from unhelpful academic policies which tend to de-motivate and stifle academic research pursuits. It was noted that since last year, academics had to finance themselves 50% share of costs of logistics and expenses pertaining to domestic and international conferences attendance and other research projects. Besides, the poor instructor-student ratio places greater burden on academics, leaving them with little or no time for research, university-industry engagements and development and management of research projects and fund-raising activities.

Leadership Crisis: To ascertain the level of importance (1-5, where 1 is unimportant and 5 extremely important) which respondents attach to concerns about rapid growth, six questionnaire statements were constructed: a) concern about existence; b) concern about survival; c) concern about success in terms of profitability; d) concern about organizational success; e) concern about take-off, and; f) concern about maturity. Analysis of responses is depicted in Figure 4. A relative large number of respondents were doubtful about success. About 36% were extremely worried about the general management, whilst 33.3% saw the need to revamp the institution all together with the view to reinvigorate management for transactional leadership which visible and palpable. A respondent preferred a somewhat '*management-by-walking*' approach be encouraged. Some 18% of respondents perceived existential problems besetting growth as extreme cause for concern.

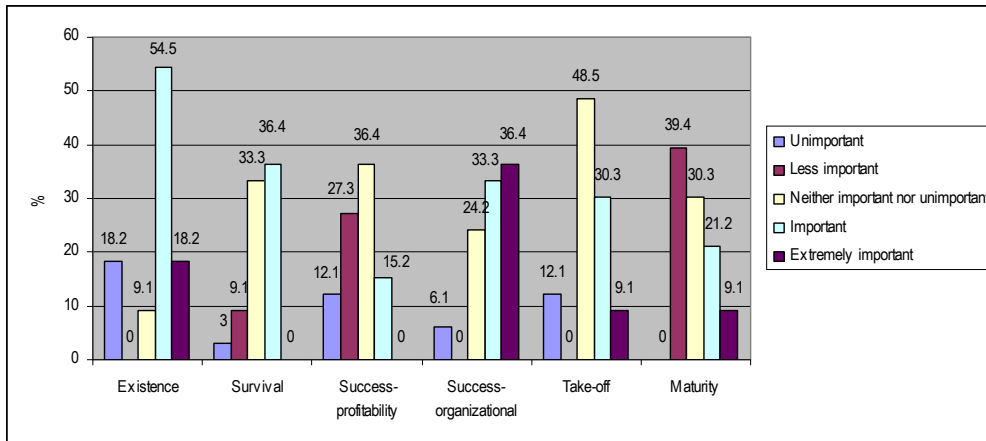


Figure 4 Organizational Concerns

Environmental Risks and Threats: About 73% of respondents believed some immediate and existential problems are there awaiting AUN as it rapidly grows. Observations seem to corroborate this fear as the political and social environment in which the organisation operates has not been favorable to the young, private-owned joint-venture.

Strong Management Grip: The role of the managers is bound to change with the different phases of organizational growth. Arguably, top management has almost managed single-handed since the start-up in 2004. Evidence show that top management still supervised many operations themselves and seems reluctant to expose the ‘inside’ of management to the public and/or let go the grip on helm of affairs. This management style of ‘grip and exclusion’ seems to preclude inflow of ‘other’ ideas and cross-fertilization of knowledge and innovation and ossify a culture of mistrust. If this culture exists for long, it would have deleterious effect on motivation, productivity and growth itself. At some point in time management would have to delegate some functions and assume new and sometimes unknown managerial responsibilities.

In order to locate where AUN lies in the organizational growth trajectory, five questionnaire statements were presented. These attempted to measure perceptual levels (1-5, where 1 = very low and 5 = extremely high) about management operations: a) founders and managers are actively involved in operations of the organization; b) management is getting a grip on operations; c) management is delegating and decentralizing operations; d) management is formalizing transactions and operations, and; e) management is using teams and collaboration systems.

Inaccessibility: Results are depicted in Figure 5. Evidence showed that the vigour and vibrancy of founders and top management in all activities across the board during the early part of start-up. This has significantly tapered off if not ceased entirely. Response, especially from top management to growth needs have been moderate to very low. This contrasts markedly with the early start-up engagements when full-house Board meeting sessions were held and regular tours to campus, surprise visits to classrooms, study sessions, cafeteria and dormitories, and informal rapport with students took place. The

main explanation to the low level engagement of management/founders given was the effects of either changing roles or problems of role definition.

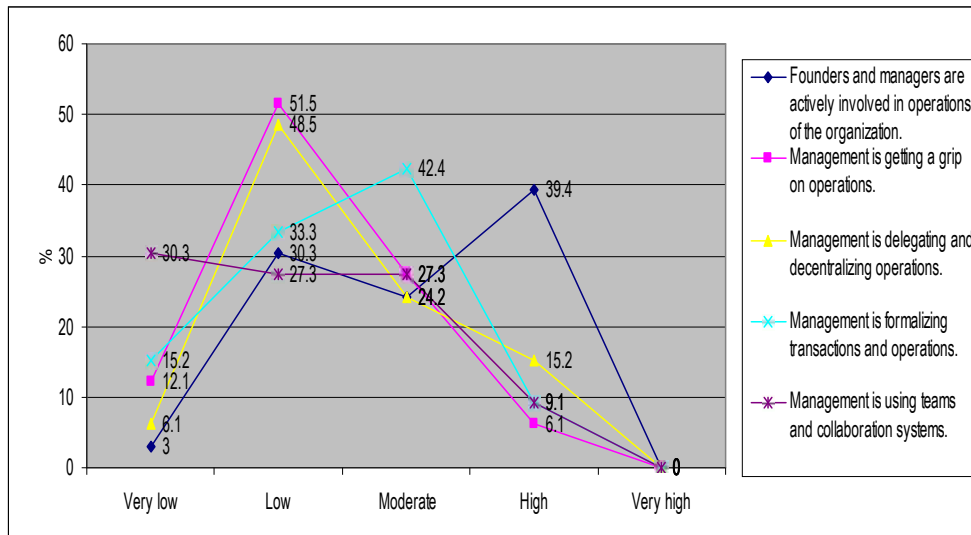


Figure 5 Perceptions about Management Operations

Lack of Strategy Focus: Half (51.5%) of respondents perceived management has tightened their grip on operations as the institution grows rapidly. It appeared this style of management and rapid growth, especially in student numbers and infrastructures caused management to loose visibility and control over operations. Recent incidents such as inconsistencies in students' pre-registration exercises, delays in arrival of student textbooks ordered from abroad, conflicting examination schedules, information overload and communication breakdown, conflicting roles, staff and students' disenchantment all go to explain lack of strategy focus.

Structural Inconsistencies and Misinformation: Evidence shows that communication is infrequent and informal, and structure is non-existent or rudimentary. The comments of a director about roles, responsibilities and structural dysfunction paint a good picture of the structural problems:

"The confusion here is that maintenance requests should be forwarded to HR but the help line is in the hands of [planning, physical development unit] personnel. Or have you transferred the maintenance supervisor from ... to HR so that he take his orders from there and report there as well? [AUN] is becoming a magical institution.... the more I look these days, the less I see and the more I read, the less I understand. Please let us not run away from reality. If there is a problem somewhere, is better we identify it and solve rather than creating more confusion."

Since management is not doing well by letting off their grip on operations, it logically follows that the pace of delegation and decentralization of function vis-à-vis rapid growth is very low. It seems the organization is not reaping the benefits of decentralization which include enhancement of employee motivation, performance, satisfaction, creativity, involvement, commitment and consequently increased

productivity. Respondents (30.3%) perceived very low efforts made by management to exploit the benefits of teamwork and collaboration for competitive advantage. Globalization and national differences make the nature of teamwork and collaboration important at AUN (Klein & McHugh, 2005). Teaching and learning are complex tasks that demand expertise in domains beyond the competencies and creativity of one person or nationality. It seems management has not fully realized the national differences of staff and may run the risk of inefficiencies, communication barriers, and coordination breakdowns. Until it realizes this fact and grows effective teams and collaboration systems, it would find it hard to leverage expertise, effort, commitment, and adaptability for its goal achievement.

Further Analysis

Further analysis using Factor Analysis was made to get an insight into the relationships between the 17-item questionnaire variables and reduce them to a meaningful set which best explains the growth model. After a closer examination of the correlations between the 17 variables in the research instrument, two main issues came to the fore. These included the issues which pair of variables could be a sufficient substitute for the others and whether the elimination of a set of paired variables would be justified without the loss of detail whilst isolating the pattern of perception that respondents perceive as being the crucial factors for explaining rapid growth and its consequences.

The solution to the two issues raised appeared to lie in Principal Component (PC) analysis which is a major procedural stage in Factor Analysis (Cooley & Lohnes, 1952). The correlation map in Figure 6 shows interesting linkages between sets of pair variables (*where $r = 0.5$ is strong positive correlation*). Overall, strong positive correlations were identified within the growth stage variables: a) 'Founders and managers are actively involved in operations of the organization' and 'Management is getting a grip on operations' ($r = 0.6$); b) 'Management is getting a grip on operations' and 'Management is delegation and decentralizing operations' ($r = 0.6$); c) 'Management is delegation and decentralizing operations' and 'Management is using teams and collaboration systems' ($r = 0.6$). Another strong positive inter-group linkage exist between growth rate and organizational concern: 'Number of published research' and 'Take-off' ($r = 0.6$). The organizational concern variable 'Take-off' again correlates positively with the growth stage variable "Management is delegation and decentralizing operations" ($r = 0.5$).

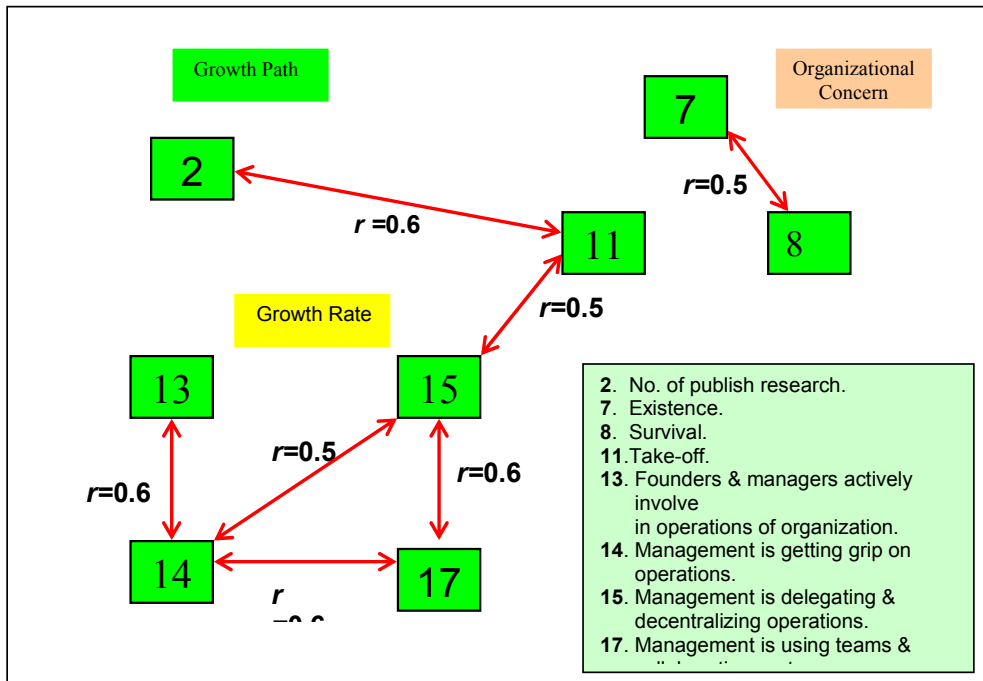


Figure 6 Correlation Map

These pair correlations corroborate the strong positive linkages within the growth stage variables, and between this group and the organizational concern group variables. Only a growth rate variable is linked to the organizational concern group variables. It seems the 'Take-off' issue is significant in the findings, but further investigation and explanations are needed about the correlations.

Table 2 shows VARIMAX factor loadings on the 17 variables and 5 PCs (Principal Components) isolated. These PCs account for 66.8% of total variance. A model comprising the five factors may be adequate to represent the data, thus fulfilling the task of Factor Analysis as a data reduction technique.

Management Style Factor: A vital stage in the Factor Analysis was the naming of the significant factors by observing the factor loadings using the knowledge and experience gained from the survey environment. Factor 1 is dubbed the 'Management Style' factor which alone accounts 24.1% of total variance. It is positively loaded on the 'Management is Using Teams and Collaboration Systems' ($r = 0.9$), 'Management is Delegating and Decentralizing Operations' ($r = 0.8$) and 'Management is Getting a Grip on Operations' ($r = 0.7$) variables.

Table 2 PC Analysis

Variables	PC1	PC2	PC3	PC4	PC5
1. Number of Degree Programs	0.2	0.4	0.1	0.0	0.1
2. Number of Published Research	0.6	0.5	0.0	0.1	0.3
3. Number of Students Enrolled Yearly	0.0	-0.1	0.2	0.3	0.0
4. Capacities of Physical Planning and Design	-0.2	-0.2	0.3	0.4	-0.1
5. Cost of Campus Site Maintenance	-0.1	-0.2	0.3	0.2	0.0
6. Instructor-Student Ratio	0.4	-0.4	-0.1	0.4	-0.1
7. Concern for Existence	0.2	0.5	-0.4	0.0	-0.5
8. Concern for Survival	0.2	0.5	-0.6	0.4	-0.2
9. Concern for Success-Profitability	0.1	0.8	0.5	0.4	0.1
10. Concern for Success-Organization	0.1	-0.1	-0.2	0.4	0.7
11. Concern for Take-Off	0.6	0.2	0.1	-0.1	0.1
12. Concern for Maturity	0.5	0.1	0.2	-0.7	0.3
13. Founders and Manag't are Actively Involved in operations	0.5	-0.4	-0.4	0.2	0.2
14. Management is Getting a Grip on Operations	0.7	-0.3	-0.3	-0.1	-0.1
15. Management is Delegating and Decentralizing Operations	0.8	-0.3	0.0	0.0	-0.1
16. Management is Formalizing Transactions and Operations	0.3	-0.3	0.1	0.1	0.1
17. Management is Using Teams and Collaboration Systems	0.9	-0.1	0.5	0.0	-0.4
% of Variance	24.1	14.9	10.9	9.5	7.5
Cumulative %	24.1	38.9	49.8	59.3	66.8

Note: * 5 Components extracted; Factor Extraction Method: Principal Component Analysis; PC Principal Component. Rotation Method: VARIMAX with Kaiser Normalization. Factor loadings in dark italics ≥ 0.50 .

The *Management Style* factor collaborate the characteristics of management style described above. This factor is a strong indicator of the growth phase in which the organization is at the moment (i.e. between Phase 1 and Phase 2). Factor 2 named '*Success-Profitability*' factor which is highly and positively loaded on 'Concern for Profitability' ($r = 0.8$). It accounts 14.9% of total variability. Cumulatively, Factors 1 and 2 account 38.9% of variance. This factor explains the huge investment made and the financial burden on the founders who should expect a long time before break-even. Factor 3 termed the '*Team-Collaboration*' factor is positively loaded on the 'Management is Using Teams and Collaboration Systems' variable ($r = 0.5$). This factor confirms the need to realize structural inconsistency and the call for quick assessment and correction of the structural and communication gaps. All three factors seem representative of the research model; they account cumulatively about 50% of total variance.

Impact of Management Style: One-Way ANOVA (Analysis of Variance) was conducted to assess variance for the dependent variable 'Management is Getting a Grip on Operations' by the single independent variables 'Management is Delegating and Decentralizing Operations' and 'Management is

Using Teams and Collaboration Systems’ and ‘Management is Formalizing Transactions and Operations’. Results showed that the more management grip tight to control operations, the less it delegates, decentralize operations, gives autonomy to lower hierarchy functions and positions, and above all the less the intention to use teams and collaboration systems.

Table 3 shows that there are no significant difference in the perceptions of academics/staff and management groups with reference to ‘Capacities of Physical Planning and Design’ ($F=0.085$; $p=0.772$), ‘Concern for Success-Organization’ ($F=0.000$; $p=1.000$), ‘Concern for Maturity’ ($F=0.000$; $p=1.000$), and ‘Management is Formalizing Transactions and Operations’ ($F=0.328$; $p=0.571$), because their p -values are larger than their F ratios. However, the perceptions of the two groups showed significant differences with respect to the remaining variables, since their p -values (*Sig.*) were less than their F ratios.

Management Implications

Churchill and Lewis model provides a framework for examining rapid growth. The model articulated the five stages of strategic choice growth namely, existence, survival, success, take-off and resource maturity. Evidence shows that AUN has past the existence stage and has entered the survival stage. Management seems to have more work to do as result of increased diversity and complexity. These will embrace appraisal of managerial styles, organisational re-structure, crafting formal systems, planning strategic goals and engendering stakeholders’ involvement in the business process.

AUN seems to have passed the birth stage. Initially, the founders were technically or entrepreneurially oriented. They were heavily involved in the conception, planning and inauguration of the institution. There has been significant increase in student numbers, class size, expansion of site and facilities and burgeoning costs of maintenance, repair and operations. Also, there has been growing concerns about organizational success and future take-off. The perception about risks in the environment was found to be high. The sources of risks lie mostly in volatility of cultural, political and economic conditions in which the organization operate. Communication have been frequent and informal. Long hours of work by pioneer staff were rewarded with modest salaries and promises of benefits.

Table 3 Analysis of Variance

Variable		Sum of Squares	Df	Mean Square	F	Sig.
1. Number of degree programs	Between Groups	0.253	1	0.253	0.493	0.488
	Within Groups	15.929	31	0.514		
2. Number of published research	Between Groups	1.632	1	1.632	1.666	0.206
	Within Groups	30.368	31	0.980		
3. Number of students enrolled yearly	Between Groups	0.912	1	0.912	2.180	0.150
	Within Groups	12.967	31	0.418		
4. Capacities of physical planning and design	Between Groups	0.054	1	0.054	0.085	0.772
	Within Groups	19.582	31	0.632		
5. Cost of campus site maintenance	Between Groups	0.962	1	0.962	1.413	0.244
	Within Groups	21.099	31	0.681		
6. Lecturer-student ratio	Between Groups	10.240	1	10.240	18.377	0.000
	Within Groups	17.275	31	0.557		
7. Concern for existence	Between Groups	0.793	1	0.793	0.826	0.370
	Within Groups	29.753	31	0.960		
8. Concern for survival	Between Groups	0.747	1	0.747	0.740	0.396
	Within Groups	31.313	31	1.010		
9. Concern for success-profitability	Between Groups	0.937	1	0.937	0.726	0.401
	Within Groups	39.973	31	1.289		
10. Concern for success-organization	Between Groups	0.000	1	0.000	0.000	1.000
	Within Groups	28.000	31	0.903		
11. Concern for take-off	Between Groups	3.746	1	3.746	6.492	0.016
	Within Groups	17.890	31	0.577		
12. Concern for maturity	Between Groups	0.000	1	0.000	0.000	1.000
	Within Groups	32.000	31	1.032		
13. Founders and management are actively involved in operations	Between Groups	3.898	1	3.898	4.503	0.042
	Within Groups	26.830	31	0.865		
14. Management is getting a grip on operations	Between Groups	2.279	1	2.279	3.025	0.092
	Within Groups	23.357	31	0.753		
15. Management is delegating and decentralizing operations	Between Groups	3.949	1	3.949	4.166	0.050
	Within Groups	29.385	31	0.948		
16. Management is formalizing	Between Groups	0.253	1	0.253	0.328	0.571

transactions and operations						
	Within Groups	23.929	31	0.772		
17.Management is using teams and collaboration systems	Between Groups	2.015	1	2.015	1.442	0.239
	Within Groups	43.319	31	1.397		

Decisions and motivations were found to be highly sensitive to market feedback. Informal communications have become infeasible as additional functions have to be implemented. Evidence gathered indicates that leadership crisis is in the offing. This correlates with low levels of decentralization, delegation, teamwork, collaboration and appreciation of knowledge potential.

There exist minimal or no significant difference in the perceptions of academic/staff and management groups with reference to growth in site and facilities, and concerns about organisation success and resource maturity. However, the perceptions of the two groups showed significant differences with respect to the remaining variables identified in the research.

Evidence shows that AUN is in transition to Phase 2 of Greiner's model. A new direction is needed to avert a leadership crisis. The cure for this rapid-growth syndrome is not easy. It is not impossible either. It is important to quickly recognise the need for a transition and pursue organisational restructuring. The institution need to look within itself and develop a clear vision, define 'why the organization exists' and 'where it wants to be taken'.

Management Challenges: The pains of growth have directly affected AUN and they seemed to have been slow in recognising the need for transition. New competent managerial, academic and administrative staff should be welcome in order to achieve managerial efficiency during the growth process. Open and frank discussions, exchange of ideas without fear, adoption of transformational management style that would change the 'out-of-the silo' to 'management-by-walking-around' approach need to be considered. Turnover rate at top-echelon has been relatively high. AUN has had four Presidents since 2005. The new President hired in 2010 seems to be more strategically focused, and the odds of success for effective rapid growth management seem high.

Human Resources Challenges: Rapid-growth warrants hiring more knowledge workers for increased productivity. The challenge here is to develop an ability to recruit talented and enthusiastic people academic and support staff. This can be achieved by the use of HR professionals. Hiring the wrong staff would increase search and quality costs. It is also very crucial to develop the ability to retrain and retain key skills by using effective incentive programs, improving working environment, job design, job rotation and opportunities for mobility to achieve increased motivation. Also student enrollment needs to be scrutinized to ensure that good students are admitted without infringing individual rights and exclusion.

Financial Challenges: As AUN grows, it would need resources (capital) to purchase additional assets: equipment, inventory, facilities and larger buildings. It also needs capital to pay added employees and other costs of increased business. Capital investment must be large enough to support business operations in both good and bad times. New and innovative management accounting practices (such as time-related Activity-Based Costing) systems and plan need to be in place. This should be in alignment

with operations and business goals. Budgets should be developed for every department in order to contain increasing costs.

Marketing Challenges: Marketing challenges are caused mainly by external factors. The institution needs to be aware of the turns and new demands of the market in order to have sustainable growth. Business plan should determine in detail the dynamics and demographics of potential student population. Competition should be examined and marketing strategy should be consequently developed in response to market demands.

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