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THE GEOGRAPHY OF ZIMBABWE'S ELECTIONS

by

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Three experiences as a geography student prompted the writing of this paper. The first was exposure to the general debate on the use and misuse of quantitative techniques within the discipline. The second was observing the frustration experienced by 'non-mathematical' geography students each time quantitative techniques were introduced into geographical work, when geography was seen by them as a qualitative subject. The third was the unfortunate observation that, when introducing new topics or techniques, lecturers use remote so called 'classical' examples at the expense of more exciting and relevant local examples. This paper is an attempt to contribute on all three fronts in an effort to show how quantitative techniques may be utilised in the local context and with relevance to geographical topics.

The world is a multivariate world and scientific explanation in Geography is entangled in the association/causality dichotomies. Factor analysis, and quantification in general, may be used as a tool to solve some of the problems encountered in geographical research work. Assuming that the application of factor analysis in Geography is desirable, in what ways can its use be introduced to 'non-mathematical' students without scaring them off Geography? A local example, using the geography of Zimbabwe's election results may be helpful.

Among the questions that may be asked after an election are;

- "i) which population groups support which party?
- ii) in which regions did groups deviate from the general trend?
- iii) what factors account for the observed voting patterns?"

(Taylor, 1979).

In Zimbabwe, which are the main factors governing voting patterns? Such factors could be age, sex, ethnicity, urbanisation factors or something different. Is there any difference in the voting behaviour of Zimbabweans of various social classes such as University graduates and working class people in the high density suburbs?

Commenting on the 1985 election results in Zimbabwe, P.F. ZAPU leader Dr Joshua Nkomo said;

"It is a tragedy that elections have divided the country into tribal and racial groups. This tragedy has never happened before." (Herald 7th July, 1985 p.9)

On September 24th 1985, Dr H. Ushewokunze (ZANU P.F. Director of Elections, Secretary for the Commissariate and Culture) gave a different view;

"This country was won by forces advocating socialism and if one of the political parties had advocated a more radical alternative and still lost, then ethnicity would have been a factor. But as it is, ZANU P.F. had the most radical programme and that is what the people voted for." (Herald 27th September 1985 p.1).

After exposure to such contrasting views, one would like to know the degree of accuracy in each. Ethnicity and socialism could certainly be contributing factors, but are they the only ones? How much does each contribute to the observed voting patterns and which one predominates?

To answer these questions election results data is needed by constituencies, and provinces and also through time. Socio-economic statistics are also necessary. For factor analysis, it is an advantage to have the data recorded in tabular form (see Table 1) and maps should be used where appropriate (see Figure 1).

Table 1: Original Data Matrix e.g. ZANU P.F. Vote through time - Zimbabwe

REGION (Provinces or Constituencies)	YEAR \longrightarrow (time)				
	1980	1985			2020
1. Matobo	24 624	30 045			
2. Mutoko	19 989	23 995			
3. Mwenezi	20 111	26 897			
4. Insiza	21 041	27 804			
n					

N.B. A change in the voting boundaries of regions will cause problems in recording and analysing data over time. Unfortunately for the political geographer, changing voting boundaries are part of African politics.

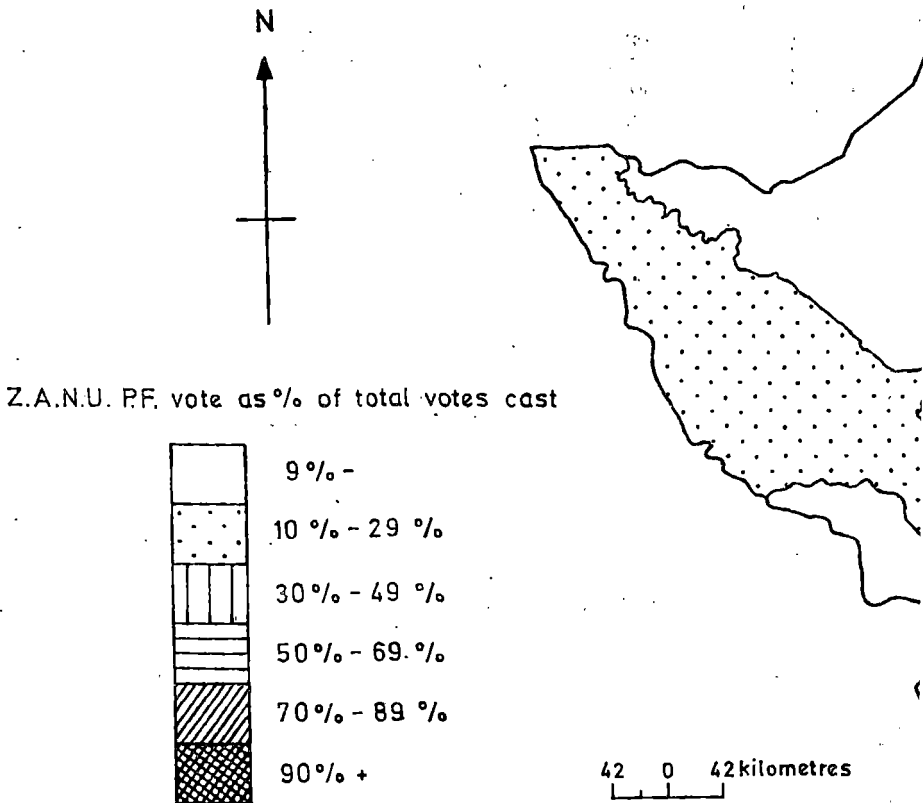
Figure 1 indicates ethnicity is an important factor. ZANU P.F. has its core region in areas dominated by Shona speaking peoples. The Matebeleland region appears to be a P.F. ZAPU stronghold and an 'anti-ZANU P.F.' zone, while the Midlands is a transition region which could fall either way. Surely these cannot be spurious correlations? (1).

FIGURE 1

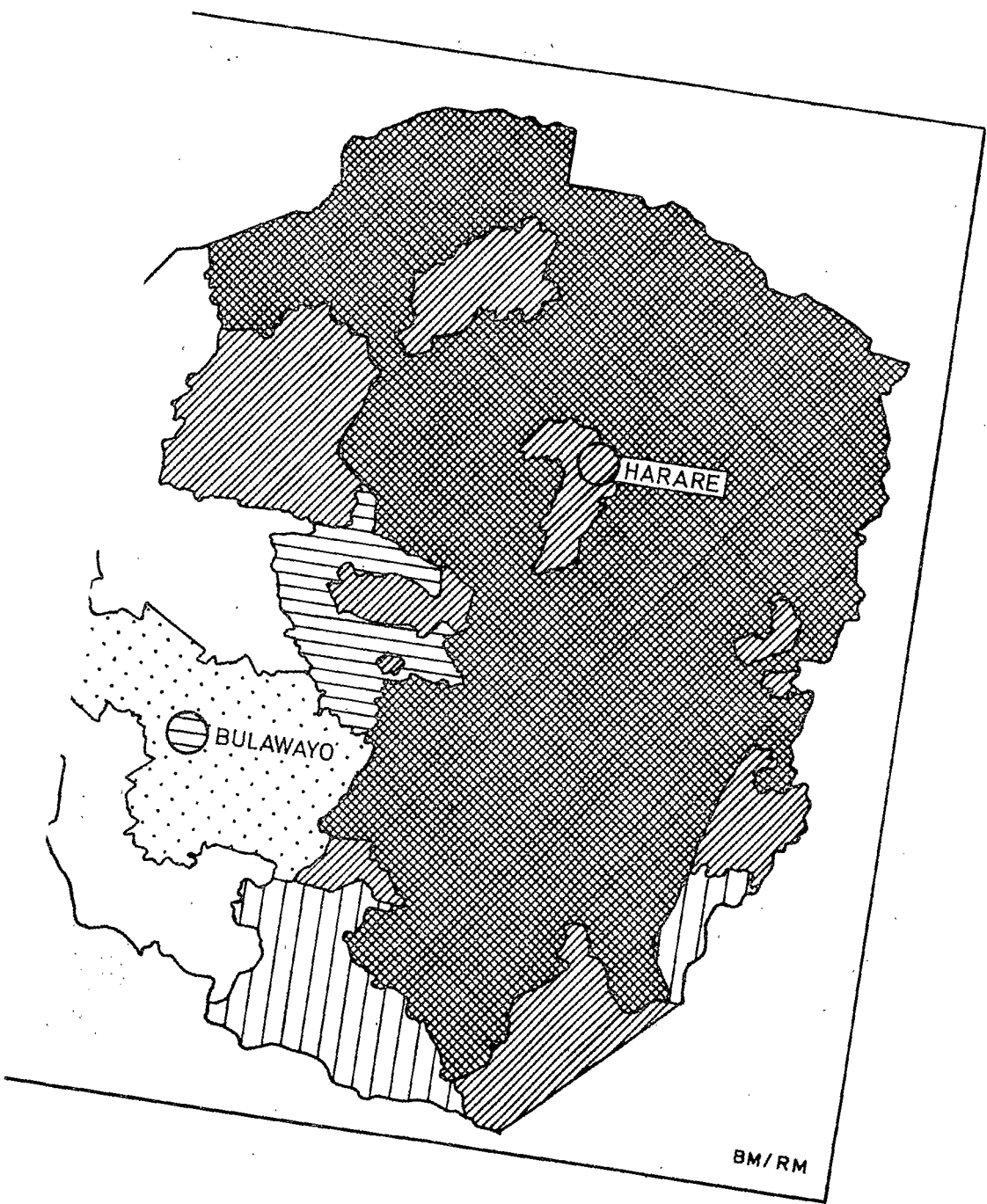
GEOGRAPHY OF ZIMBABWE ELECTIONS 1985

How stable is the Black Electorate?

(Data by Constituencies)



SOURCE : HERALD 7 JULY 1985.



BM/RM

Several factors may account for the pattern in Figure 1. These include ethnicity, ideology, urbanisation, rurality, party efficiency, education and the prevailing economic situation in certain areas. The role of factor analysis is to identify and isolate those factors that make a significant contribution to the observed patterns. A knowledge of these factors can then be used to provide a political classification of any region in Zimbabwe.

To obtain the necessary data for factor analysis may prove difficult in some cases, in Zimbabwe. While census statistics may be available on certain aspects other data will have to be collected through surveys or sample surveys. For example, data on income levels is not available from the 1982 census. The amount and the quality of data available varies from country to country. Generally, the more developed countries have far more data available from official sources, making factor analysis a more accurate quantitative tool.

It is also of interest to the geographer to analyse patterns through time, which enables him to identify trends. Political geographers and political scientists have an interest in the stability of an electorate. How permanent is the pattern shown in Figure 1? Using two maps (Figure 2) the changes can be easily analysed. However, in a case where a series of maps of the same area are to be compared, the task becomes more difficult. The implications of such a situation to geography are that;

- a) through map comparisons, factor analysis is not new to geography,
- and b) factor analysis is geographical.

Factor analysis is only a 'sharp tool' which brings greatly needed precision and rigour to geographical research and does not interfere with the philosophy of the discipline.

Analysis of election results through time (as cited above) to establish stability have been undertaken by different authors. This stability or normal vote is measured by the relative size of the first eigen value in a factor analysis approach. If the first eigen value is high and accounts for a large percentage of the variance, then there is a stable voting pattern. The factors responsible for the stability or instability will then be isolated for further study.

Factor analysis must enable the political classification of regions. This requires the collapsing of all the contributing factors into a few (e.g. two) principal components. Any region can be classified on the taxonomic space so produced. In Zimbabwe, such a classification space could involve the ethnicity component and the development component, for example. The comparisons of each would be as depicted in Figure 3. Districts and provinces would then be located in the taxonomic space using factor analysis techniques. At this stage if it is worthwhile going back and finding out how each of the original questions asked can fit into the outlined scheme and how each can be tested. While the outline given is at a national level, the scheme can be applied at any scale, for example for municipal elections in Harare.

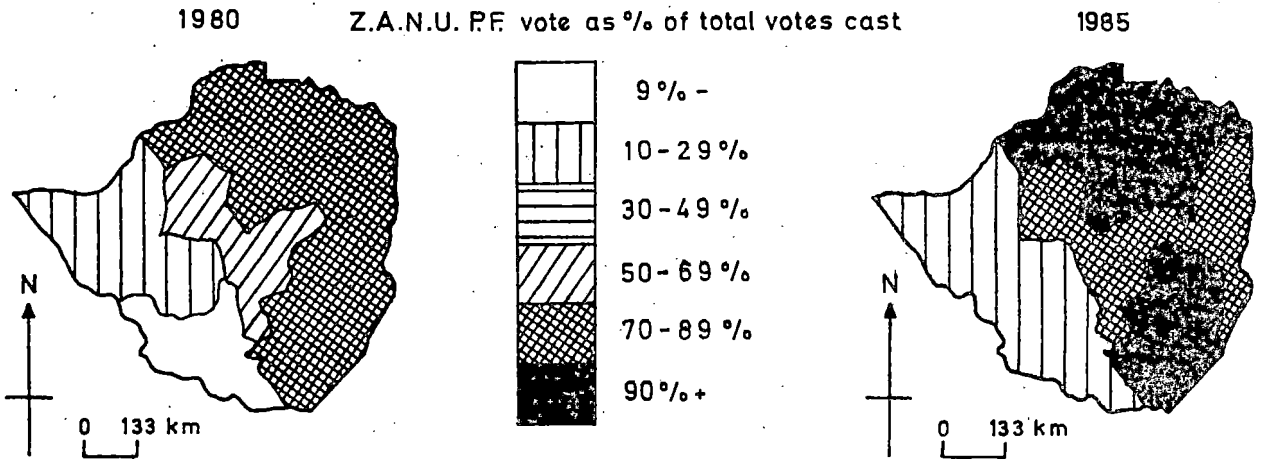
Factor analysis aims to (a) isolate the major factors responsible for spatial patterns and trends (election patterns and trends in this case), (b) to establish whether there is electorate stability or not, and (c) to group regions politically.

FIGURE 2

GEOGRAPHY OF ZIMBABWE ELECTIONS

How stable is the Black Electorate?

(Data by Provinces)

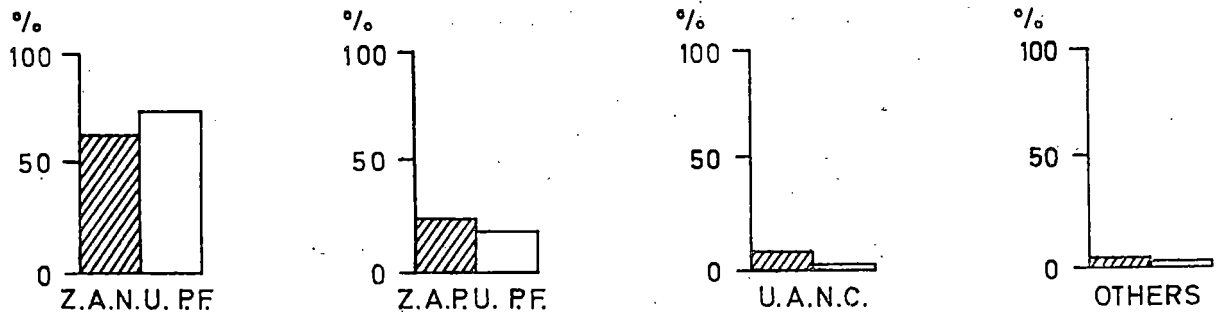


KEY



% of total vote 1980

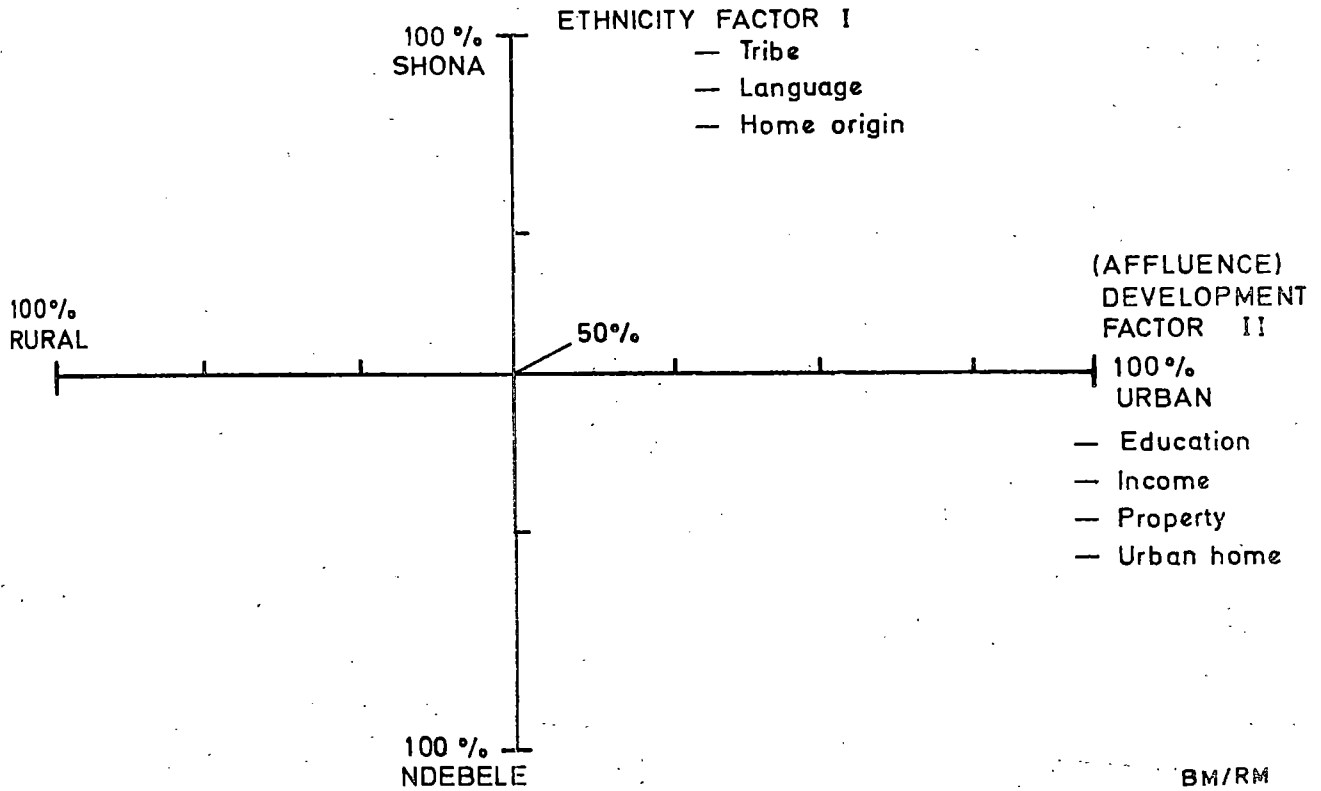
% of total vote 1985



SOURCE: HERALD 7 JULY 1985

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FIGURE 3: CONSTRUCTING AND FITTING REGIONS ONTO THE TAXONOMIC SPACE



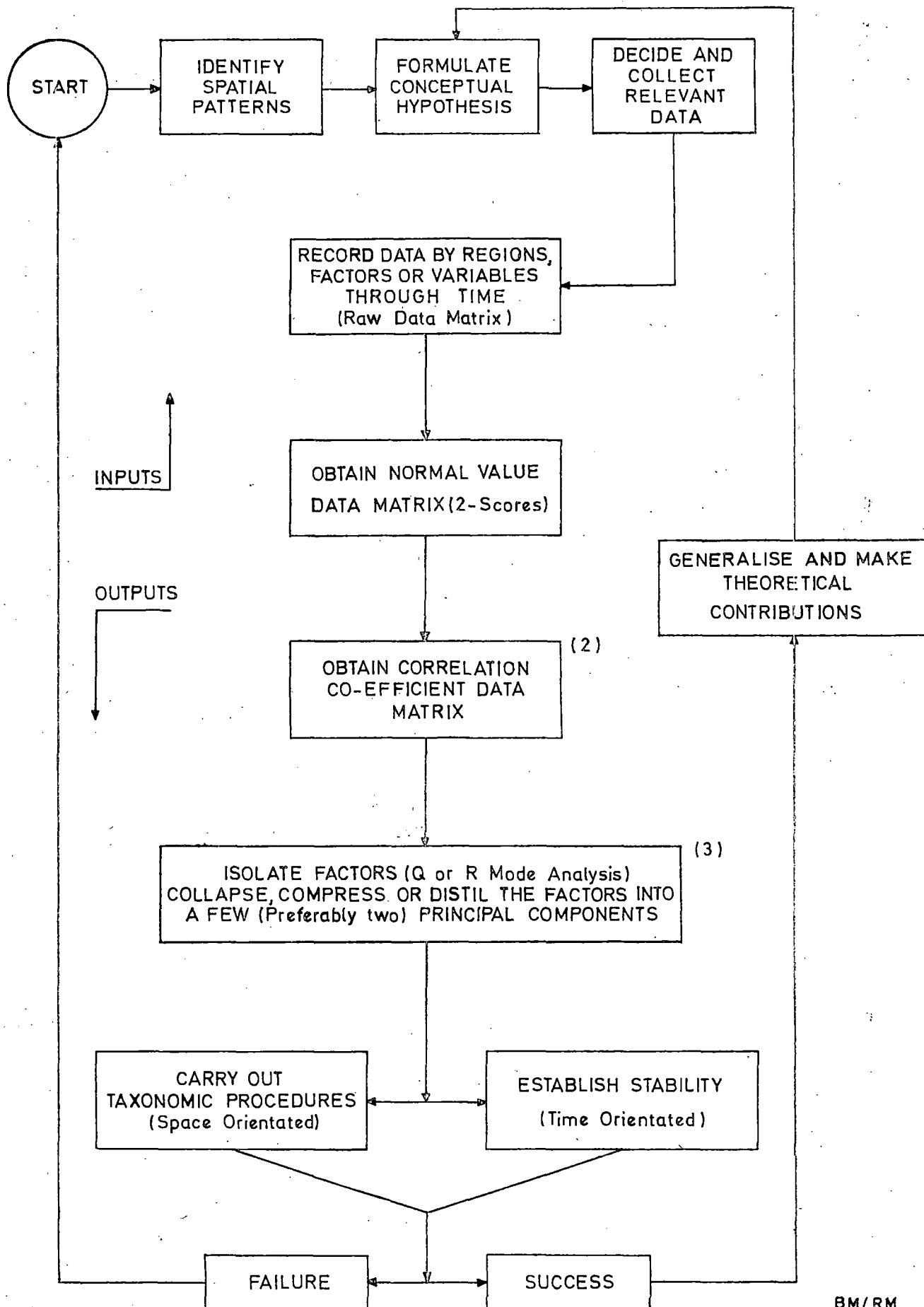
For a politician, such knowledge would be useful in monitoring those principal factors which would ensure his continued stay in power. The common man needs to be informed, (accurately) about what is taking place around him. The geographer as 'delver, dovetailer and decider', is there to serve the two!

Figure 4 summarises the procedures involved in factor analysis. One must however not forget that the use of basic geographical tools (maps, graphs, etc.) is of great help in factor analysis.

I HAVE A HUNCH: 'The voting pattern of a Black Zimbabwean University Lecturer will not be any different from that of a street vendor in Mbare'.

WHAT'S YOURS?

FIGURE 4 FACTOR ANALYSIS PROCEDURE



NOTES

1. Spurious correlations (often called nonsense correlations) are mere associations between variables without any cause-effect relationship. e.g. in Zimbabwe the distribution of inselbergs (Whitlow, 1980) is highly correlated with areas of a high yes ZANU P.F. vote. Can mere rocks have an effect on people's voting behaviour?
2. The correlation co-efficient matrix summarises the similarities between various variables.
3. A Q mode analysis involves the comparisons of rows while an R mode involves that of columns.

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