

## **Proceeding**

The 12<sup>th</sup> UBAYA International Annual Symposium on Management

# SUSTAINABILITY AS A STRATEGIC BUSINESS ORIENTATION IN GLOBAL ECONOMY RECOVERY PHASE

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Published by:

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Universitas Surabaya Jl. Raya Kalirungkut

Surabaya, Indonesia 60293

Phone : +62-31-2981139 Fax : +62-31-2981239

ISBN: 978-979-99365-9-2

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## **Empirical Evidence of Private Debts in Indonesia**

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Abstract- This study aims to examine the effect of firm size, fixed asset ratio, market to book value of equity ratio, debt maturity, and public ownership to the use of private debt on corporate manufacturing sector in IDX the period 2010-2012. This study uses the quantitative approach to multiple linear regression analysis model. The study findings suggest that firm size significant positive effect on the use of private debt, firm size quadratic significant negative effect on the use of private debt, market to book value of equity ratio is not significant positive effect on the use of private debt and significant positive effect on the use of private debt and significant positive effect on the use of private debt, public ownership exhibited is significantly positive effect on the use of private debt, public ownership exhibited is significantly positive effect on the use of private debt.

Keywords: Private Debt, Asymmetric Information Theory, Agency Theory.

## **Background**

According to creditor, debt can be categorised into two different kinds of type namely *private debt* and *public debt*. Private debt is a loan that can be given by finance institution to private firm while *public debt* is a loan that can be given by society to firm. James and Weir (1988) explained compared to *public debt*, *private debt* had several advantages.

First of all, *private debt* is able to reduce *asymmetric information* compared with *public debt*. The opinion was supported by Eugene Fama (1985) who said *private debt* had an information access consisting the borrowers while *public debt* was unable to have it. On the other hand, if an individualowns to the society (*public debt*), the information regarding borrowers would be difficult to get or could be controlled through debt rating government agencies, analyst' reports, and independent auditor. Secondly, the finance institution has a better position to monitor regarding borrowers compared to obligation security issuer. Thirdly, the finance institution is able to keep firm secret like firm investment opportunity. Lastly, by using *private debt*, someone could avoid a longer process and higher cost than *public debt* issuer.

Some researchers have discussed about loan structure such as (Denis danMihov, 2003), (Krishnaswarni, SpindtdanSubramaniam, 1998), (Dhaliwal, Inder, danRaynolde, 2002), (Lin, Ma, and Xuan, 2013), are bank loans different?: Some evidence from the stock market (James and Weir, 1988), public debt, bank debt, and non-bank private debt in emerging and developed financial markets (Yu, Johnson, andTzon, 2008).

This research aims to observe firm size, quadraticfirm size, tangible asset, growth opportunity, debt maturity, and public ownership to *private debt* usage.

## **Theoretical Study**

A major firm size is described with more stable free cash flowdue to fixed targets in a particular market that leads to steady sale. On the other hand, bank does not allow big loan to big firms because big firms which collapse would possibly affect bank losing considerable money. Therefore, big firms will prefer *public debt* (Dennis and Mihov, 2003). Small firms tend to experience unstable free cash flow. This condition is caused by the limited circumstances where thesefirms operate. Furthermore, small firms are difficult to get an access to capital market (*public debt*), like huge cost of capital/flotation cost. Hence small firms prefer to use *private debt* (Denis and Mihov, 2003). It is hypothesized that the firm size is indicated to influence negative effect on *private debt* usage.

Firm size in quadratic would determine the loan capability to *private debt* or *public debt*. Quadratic model would explain from two sides. The first one is positive linear, a small firm using *private debt*, because there is limitation to access the capital market because of flotation cost. When the firm size reaches some particular point, new firm can access to capital market and automatically decrease its portion of *private debt* utilisation.

Finance institution (bank) needs fixed assets as a guarantee when firm utilise *private debt* (Madura, 2007: p394), similar with the opinion, Yu Johnson, and Tzon (2008). The reason why bank needs guarantee is because when bank gives a loan to medium quality borrowers, then bank needs to make sure that the loan has to be secured with collateral (Denis and Mihov, 2003). To sum up, it is hypothesized that tangible asset is assumed to positively affect *private debt* usage.

According to Jansen in Fatmasari (2010), firms with high investment opportunity experience enormous growth and active investigation. High investigation activities will respond the increasing of opportunity. When the opportunity is increasing, manager would manage the whole projects with high NPV. This is because other managers want to control big assets that suit their remuneration. This leads managers to choose projects which are suitable with managers' wants, unfortunately the stockholders' wants are not always the same as the managers. This leads to agency problem that can be reduced if the stockholder apply cross monitoring through *private debt*. As a result, the company with high investment would prefer to use *private debt*. *Private debt usage* is able to monitor every decision made by manager (Denis and Mihov, 2003; Krishnawarni, et al, 1998). From this explanation, it can be hypothesized that the growth opportunity seems to be positive relationship to *private debt* user.

Debt maturity is a date when lenders will get the repayment including the loan interest. Debt maturity can be measured by long term debt ratio toward the total debt (Lin, Ma, and Xuan, 2013). The payment due varies from 365 days to 5 years. The bigger debt maturity the major the uncertainty. The bank does not allow to give uncertain loan because the bank fund resources do not want to experience the uncertainty. The resources are from short term income like deposit, savings, etc. The bank funding resources can only be given to short term loan too (James and Weir, 1988). Therefore this research hypothesizes that debt maturity is indicated negative regarding the *private debt* usage.

The big stockholder prefers to choose *private debt* as firm funding because the stockholder wants the third person or institution which can monitor the decision made by manager, usually finance institution. With finance institution that monitors, it will reduce asymmetric information and agency problem (Meginson, 1997). Therefore, it is hypnotized that *public ownership* shows positive relation to the *private debt* usage.

## **Explanation and Result**

The regression test to Firm Size, variable in model 1 and 2 show positive and significant impact to *private debt* usage. This is supported by Yu, Johnson, and Tzon (2008); Lin, Ma, and Xuan (2013) which found the significant and positive result but contradictive with Denis and Mihov's (2013), James and Wier's (1988); Krishnaswarni, Spindt, and Subramaniam's (1999); Dhaliwal, Inder, and Raynolde's research (2013) which differently found negative significant.

This means that big firms experience stable sale which produces abundant free cash flow. abundant free cash flow is more likely used by managers to their own interest (contradictory practice in order to hold the stockholder), such as upgrading facilities, selling firm's product cheaply to another firm which belongs to the same manager. Hence, *private debt* has monitoring position where stockholder do their cross monitoring through *private debt* because it is more concerned about *borrower* compared with *public debt*.

Table 1 and regression test result

	Model 1		Model 2		
Variabels	Coefficient	T-stat	Coefficient	T-stat	
Constant	-2.849134***	-11.195	-0.522211***	-5.7828	
Firm Size	0.921631***	11.0321	0.177534***	6.2537	
Firm Size Kuadratik	-0.071349***	-10.893	-0.013826***	-6.2784	
Fixed Asset Ratio	0.173536***	5.24425	0.051981***	4.8324	
MTBR	0.001179	0.58266	0.001965***	2.7208	
Debt Maturity	0.133399***	5.90478	0.005185	0.6527	
Public Ownership	0.058208	1.42958	0.101022***	6.5459	
Adj. R-Squared	0.96326		0,997088		
F-Stat	469.1877***		6114.841***		

FIRM SIZE QUADRATIC variable in model 1 and 2 influenced significantly negative to *private debt* within quadratic. This relationship is matching with Yu, Johnson, and Tzon (2008); Lin, Ma, Xuan's research (2013) which said found significant positive while Denis and Mihov (2003); James danWier (1988); Krishnaswarni, Spind, and Subramaniam (1999); Dhaliwal, Inder, and Raynolde (2011) found significant negative.

This means small firm will utilise *private debt* but, when the company is growing in a particular point, it will reduce *private debt* slowly and start using *public debt*. The similarity regression *private debt* model 1 is Ltl/Ltd = -2.849134 + 0.921631 *FIRMSIZE* -0.071349 *FIRM SIZE KUADRATIK*, then using derivative function Ltl/Ltd' = 0.921631 - 0.142698 LTA. The result from LTA is = 0.921631 / 0.142698 = 6.458611. Therefore, the optimal point is approximately 6.458611 or in the asset value is IDR 2.874.822.266.766 / IDR 2.87trillion.

The TANGIBLE ASSET period in model 1 and 2 shows significant positive impact to *private debt*. This is matching with Yu, Johnson, and Tzon's research (2009) which said the significant positive effect compared to significant negative which was said by Denis and Milhov (2013), Dhaliwal, Inder and Raynolde (2011).

Firms which own fixed assets tent to utilise *private debt* usage. It means the bigger the owned asset, the bigger its proportion of *private debt*. This condition appears because the frim with growing asset is easier to get loan because the value of asset used to guarantee is bigger accompanied by bank or finance institution's big trust. Madura (2007: p394; Yu, Johnson, and Tzon, 2008) said that the bank needs real terms of guarantee when they agree to give loan to a company.

According to t-test, the hypothesis which says that Market to book value of equity ratio (MTBR) in model 1 affecting positive influence *private debt* user is rejected while MTBR in model 2 sees there is a positive and significant relationship in *private debt* usage. This is similar with Dhaliwal, Inder and Raynolde (2011); Yu, Johnson, and Tzon (2008); Krishnaswarni, Spindt, and Subramaniam's research (1999)which said that market to book value of equity ratio influenced positive impact to *private debt* usage.

Company with higher investment opportunity would be active to invest. This would affect an enormous growth. When the opportunity of growth is high, manager would take the whole project although he or she has negative NPV. Managers are usually interested to take those projects which suitable with them to be controlled that possibly rise their salary although the stockholder's wants are not always matching with managers'. This will lead to agency problem. Agency problem can be

reduced when the stockholder operate cross monitoring through *private debt*. As a result, firms with high growth opportunity tend to choose *private debt*. Using *private debt* allows them to monitor every decision made by manager.

Debt Maturity in model 2 brings significant positive to *private debt* usage while Debt Maturity in model 2 shows positive but not significant result. This is contradictory with James and Wier's research (1988) which resulted significant negative impact on *private debt* usage. The longer maturity the bigger the uncertainty the debt repayment. Because of that monitoring is needed. Monitoring aims to control the availability of debt repayment. During controlling process, bank can evaluate the firm loan that make them able to reduce the uncertainty.

According to the regression result, there is a hypothesis describes Public Ownership in model 1 showing positive impact to *private debt* is rejected, while Public Ownership in model 2 results significant and positive impact to *private debt*. This means stockholder prefers to choose *private debt* as source of funding. The bigger the public stock ownership the bigger the mechanism of controlling management behaviour. The existence of public stockholder will ease monitoring, intervention or some discipliner impact to managers resulting appropriate acts as the stockholder wants. The public stockholder wants the third person, which is the finance institution to monitor every decision made by manager. By corporation with finance institution, the asymmetric information and agency problem can hopefully be reduced.

#### **Conclusions**

The study found that firm size significant positive effect on the use of private debt model 1 and 2, firm size quadratic significant negative effect on the use of private debt model 1 and 2, fixed asset ratio exhibited significantly positive effect on the use of private debt model 1 and 2, market to book value of equity ratio is not significant positive effect on the use of private debt model 1 and significant positive effect on the use of private debt model 2, debt maturity exhibited significantly positive effect on the use of private debt model 2, public ownership exhibited is not significantly positive effect on the use of private debt model 1 and significantly positive effect on the use of private debt model 1 and significantly positive effect on the use of private debt model 1.

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## Preparing a two column paper with MS Word for Windows

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B. Unknown

New Institute, Gouda, Netherlands

ABSTRACT: Authors of papers to proceedings have to type these in a form suitable for direct photographic reproduction by the publisher. In order to ensure uniform style throughout the volume, all the papers have to be prepared strictly according to the instructions set below. A laser printer should be used to print the text. The publisher will reduce the camera-ready copy to 75% and print it in black only. For the convenience of the authors template files for MS Word 6.0 (and higher) are provided. provided AUTHORS: Do not include author's title (Prof., Dr.), position (president, research engineer), or degrees (ph. D., M Sc., M. E.). The abstract should contain the objectives and significance of the paper, method of analysis, and conclusion and is limited to 150 words. **FULL PAPER: The overall length of the paper is limited to 4 pages**. For publishing the papers as e-book, a form 'Consent to Publish for Contributors to Books' has to be signed. The form will be provided on the conference home-page. Please upload the signed 'Consent to Publish for Contributors to Books' online as well.

#### 1 GENERAL INSTRUCTIONS

## 1.1 Type area

The text should fit exactly into the type area of 187  $\times$  272 mm (7.36"  $\times$  10.71"). For correct settings of margins in the Page Setup dialog box (File menu) see Table 1.

## 1.2 Typefont, typesize and spacing

Use Times New Roman 12 point size and 13 point line spacing (Standard;text tag). Use roman type except for the headings (Heading tags), parameters in mathematics (not for log, sin, cos, ln, max., d (in dx), etc), Latin names of species and genera in botany and zoology and the titles of journals and books which should all be in italics. Never use bold, except to denote vectors in mathematics. Never underline any text. Use the small font (10 points on 11 points) for tables (Table tags), figure captions (Figure caption tag) and the references (Reference text tag).

Never use letterspacing and never use more than one space after each other.

## 2 GETTING STARTED

## 2.1 Preparing the new file with the correct template

Copy the template file B2ProcA4.dot (if you print on A4 size paper) or B2ProcLe.dot (for Letter size pa-

per) to the template directory. This directory can be found by selecting the Tools menu, Options and then by tabbing the File Locations. When the Word programme has been started open the File menu and choose New. Now select the template B2ProcA4.dot or B2ProcLe.dot (see above). Start by renaming the document by clicking Save As in the menu Files. Name your file as follows: First three letters of the file name should be the first three letters of the last name of the first author, the second three letters should be the first letter of the first three words of the title of the paper (e.g. this paper: balpcc.doc). Now you can type your paper, or copy the old version of your paper onto this new formated file.

## 2.2 Copying old text onto new file

Open your old file and the new file. Switch between these two with the Window menu. Select all text of the old file (excluding title, authors, affiliations and abstract) and paste onto bottom of new file, after having deleted the word INTRODUCTION (see also section 2.5). Check the margin setting (Page Setup dialog box in File menu) and column settings (see Table 1 for correct settings). After this copy the texts which have to be placed in the frames (see sections 2.3 and 2.4). In order to avoid disruption of the text and frames, copy these texts paragraph by paragraph without including the first word (which includes the

Table 1. Margin settings for A4 size paper and letter size paper.

Setting	A4 size paper		Letter	Letter size paper	
	cm	inches	cm	inches	
Тор	1.2	0.47"	0.32	0.13"	
Bottom	1.3	0.51"	0.42	0.17"	
Left	1.15	0.45"	1.45	0.57"	
Right	1.15	0.45"	1.45	0.57"	
All other	0.0	0.0"	0.0	0.0"	
Column width*	9.0	3.54"	9.0	3.54"	
Column spacing*	0.7	0.28"	0.7	0.28"	

<sup>\*</sup> Column dialog box in Format menu.

old tag). It is best to first retype the first words manually and then to paste the correct text behind. When the new file contains all the text, the old tags in the text should be replaced by the new Balkema tags (see section 3). Before doing this apply automatic formatting (AutoFormat in Format menu).

## 2.3 Title, author and affiliation frame

Place the cursor on the T of Title at the top of your newly named file and type the title of the paper in lower case (no caps except for proper names). The title should not be longer than 75 characters). Delete the word Title (do not delete the paragraph end). Place the cursor on the A of A.B.Author(s) and type the name of the first author (first the initials and then the last name). If any of the co-authors have the same affiliation as the first author, add his name after an & (or a comma if more names follow). Delete the words A.B. Author etc. and place the cursor on the A of Affiliation. Type the correct affiliation (Name of the institute, City, State/Province, Country). Now delete the word Affiliation. If there are authors linked to other institutes, place the cursor at the end of the affiliation line just typed and give a return. Now type the name(s) of the author(s) and after a return the affiliation. Repeat this procedure until all affiliations have been typed.

All these texts fit in a frame which should not be changed (Width: Exactly 187 mm (7.36"); Height: Exactly 73 mm (2.87") from top margin; Lock anchor).

## 2.4 Abstract frame

If there are no further authors place the cursor one space behind the word ABSTRACT: and type your abstract of not more than 150 words. The top of the first line of the abstract will be 73 mm (2.87") from the top of the type area. The complete abstract will fall in the abstract frame, the settings of which should also not be changed (Width: Exactly 187 mm (7.36"); Height: Automatic; Vertical 73 mm (2.87") from margin; Lock anchor).

## 2.5 First line of text or heading

If your text starts with a heading, place the cursor on the I of INTRODUCTION and type the correct text for the heading. Now delete the word INTRODUC-TION and start with the text after a return. This text should have the tag First paragraph.

If your text starts without a heading you should place the cursor on the I of INTRODUCTION, change the tag to First paragraph and type your text after deleting the word INTRODUCTION.

## 3 LAYOUT OF TEXT

## 3.1 Text and indenting

Text is set in two columns of 9 cm (3.54") width each with 7 mm (0.28") spacing between the columns. All text should be typed in Times New Roman, 12 pt on 13 pt line spacing except for the paper title (18 pt on 20 pt), author(s) (14 pt on 16 pt), and the small text in tables, captions and references (10 pt on 11 pt). All line spacing is exact. Never add any space between lines or paragraphs. When a column has blank lines at the bottom of the page, add space above and below headings (see opposite column).

First lines of paragraphs are indented 5 mm (0.2") except for paragraphs after a heading or a blank line (First paragraph tag).

## 3.2 Headings

Type primary headings in capital letters roman (Heading 1 tag) and secondary and tertiary headings in lower case italics (Headings 2 and 3 tags). Headings are set flush against the left margin. The tag will give two blank lines (26 pt) above and one (13 pt) beneath the primary headings, 1½ blank lines (20 pt) above and a ½ blank line (6 pt) beneath the secondary headings and one blank line (13 pt) above the tertiary headings. Headings are not indented and neither are the first lines of text following the heading indented. If a primary heading is directly followed by a secondary heading, only a ½ blank line should be set between the two headings. In the Word programme this has to be done manually as follows: Place the cursor on the primary heading, select Paragraph in the Format menu, and change the setting for spacing after, from 13 pt to 0 pt. In the same way the setting in the secondary heading for spacing before should be changed from 20 pt to 7 pt.

## 3.3 *Listing and numbering*

When listing facts use either the style tag List signs or the style tag List numbers.

## 3.4 Equations

Use the equation editor of the selected word processing programme. Equations are not indented (Formula tag). Number equations consecutively and place the number with the tab key at the end of the line, between parantheses. Refer to equations by these numbers. See for example Equation 1 below:

From the above we note that  $\sin \theta = (x + y)z$  or:

$$K_t = \left(1 - \frac{R^2 \tau}{c_a + v \tan \delta}\right)^4 k_1 \tag{1}$$

where  $c_a$  = interface adhesion;  $\delta$  = friction angle at interface; and  $k_1$  = shear stiffness number.

For simple equations in the text always use superscript and subscript (select Font in the Format menu). Do not use the equation editor between text on same line.

The inline equations (equations within a sentence) in the text will automatically be converted to the AMS notation standard.

## 3.5 Tables

Locate tables close to the first reference to them in the text and number them consecutively. Avoid abbreviations in column headings. Indicate units in the line immediately below the heading. Explanations should be given at the foot of the table, not within the table itself. Use only horizontal rules: One above and one below the column headings and one at the foot of the table (Table rule tag: Use the Shift-minus key to actually type the rule exactly where you want it). For simple tables use the tab key and not the table option. Type all text in tables in small type: 10 on 11 points (Table text tag). Align all headings to the left of their column and start these headings with an initial capital. Type the caption above the table to the same width as the table (Table caption tag). See for example Table 1.

## 3.6 Figure captions

Always use the Figure caption style tag (10 points size on 11 points line space). Place the caption underneath the figure (see Section 5). Type as follows: 'Figure 1. Caption.' Leave about two lines of space between the figure caption and the text of the paper.

## 3.7 References

In the text, place the authors' last names (without initials) and the date of publication in parentheses (see examples in Section 5). At the end of the paper, list all references in alphabetical order underneath the heading REFERENCES (Reference heading tag). The references should be typed in small text (10 pt on 11 pt) and second and further lines should be in-

dented 5.0 mm (0.2") (Reference text tag). If several works by the same author are cited, entries should be chronological:

Larch, A.A. 1996a. Development ...

Larch, A.A. 1996b. Facilities ...

Larch, A.A. 1997. Computer ...

Larch, A.A. & Jensen, M.C. 1996. Effects of ...

Larch, A.A. & Smith, B.P. 1993. Alpine ...

## 3.7.1 *Typography for references*

Last name, First name or Initials (ed.) year. *Book title*. City: Publisher.

Last name, First name or Initials year. Title of article. *Title of Journal* (series number if necessary) volume number (issue number if necessary): page numbers.

## 3.7.2 Examples

Grove, A.T. 1980. Geomorphic evolution of the Sahara and the Nile. In M.A.J. Williams & H. Faure (eds), *The Sahara and the Nile*: 21-35. Rotterdam: Balkema.

Jappelli, R. & Marconi, N. 1997. Recommendations and prejudices in the realm of foundation engineering in Italy: A historical review. In Carlo Viggiani (ed.), Geotechnical engineering for the preservation of monuments and historical sites; Proc. intern. symp., Napoli, 3-4 October 1996. Rotterdam: Balkema.

Johnson, H.L. 1965. Artistic development in autistic children. *Child Development* 65(1): 13-16.

Polhill, R.M. 1982. Crotalaria in Africa and Madagascar. Rotterdam: Balkema.

#### 3.8 Notes

These should be avoided. Insert the information in the text. In tables the following reference marks should be used: \*, \*\*, etc. and the actual footnotes set directly underneath the table.

## 3.9 Conclusions

Conclusions should state concisely the most important propositions of the paper as well as the author's views of the practical implications of the results.

## 4 PHOTOGRAPHS AND FIGURES

Number figures consecutively in the order in which reference is made to them in the text, making no distinction between diagrams and photographs. Figures should fit within the column width of 90 mm (3.54") or within the type area width of 187 mm (7.36").

Figures, photographs, etc. can be in black/white or full color, but will be produced in the book in black/white only. Paste copies of the same size onto the typescript where you want them to appear in the text. Do not place them sideways on a page; however if this cannot be avoided, no other text (except the figure caption) should appear on that page. Figures, etc. should not be centered, but placed against the

left margin. Leave about two lines of space between the actual text and figure (including caption). Never place any text next to a figure. Leave this space blank. The most convenient place for placing figures is at the top or bottom of the page. Avoid placing text between figures as readers might not notice the text. Keep in mind that everything will be reduced to 75%. Therefore, 9 point should be the minimum size of the lettering. Lines should preferably be 0.2 mm (0.1") thick. Keep figures as simple as possible. Avoid excessive notes and designations.

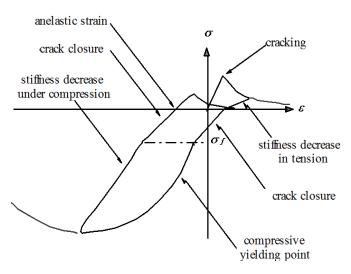


Figure 1. Caption of a typical figure. Photographs will be scanned by the printer. Always supply original photographs.

Photographs should be with good contrast and on glossy paper. Photographic reproductions cut from books or journals, photocopies of photographs and screened photographs are unacceptable. The proceedings will be printed in black only. For this reason avoid the use of colour in figures and photographs. Colour is also nearly always unnecessary for scientific work.

## 5 PREFERENCES, SYMBOLS AND UNITS

Consistency of style is very important. Note the spacing, punctuation and caps in all the examples below.

- References in the text: Figure 1, Figures 2-4, 6, 8a, b (not abbreviated)
- References between parentheses: (Fig. 1), (Figs 2-4, 6, 8a, b) (abbreviated)
- USA / UK / Netherlands / the Netherlands instead of U.S.A. / U.K. / The Netherlands
- Author & Author (1989) instead of Author and Author (1989)
- (Author 1989a, b, Author & Author 1987) instead of (Author, 1989a,b; Author and Author, 1987)
- (Author et al. 1989) instead of (Author, Author & Author 1989)

Use the following style: (Author, in press); (Author, in prep.); (Author, unpubl.); (Author, pers. comm.)

Always use the official SI notations:

- kg / m / kJ / mm instead of kg. (Kg) / m. / kJ.
   (KJ) / mm.;
- 20°16′32″SW instead of 20° 16′ 32″ SW
- 0.50 instead of 0,50 (used in French text); 9000 instead of 9,000 but if more than 10,000: 10,000 instead of 10000
- <sup>14</sup>C instead of C<sup>14</sup> / C-14 and BP / BC / AD instead of B.P. / B.C. / A.D.
- $\times 20$  instead of  $\times 20$  /  $\times 20$  /  $\times 20$ ; 4 + 5 > 7 instead of 4+5>7 but -8 / +8 instead of -8 / +8
- e.g. / i.e. instead of e.g., / i.e.,

## 6 SUBMISSION OF MATERIAL TO THE EDITOR

The camera-ready copy of the complete paper printed on a high resolution printer on one side of the paper as well as two copies of the paper should be sent to the editor after receiving the final acceptance notice. The paper should be sent together with the signed Copyright form. Include the original photographs. Check whether the paper looks the same as this sample: Title at top of first page in 18 points, authors in 14 points and all other text in 12 points on 13 points line space, except for the small text (10 point on 11 point line space) used in tables, captions and references. Also check if the type width is 187 mm (7.36"), the column width 90 mm (3.54"), the page length is 272 mm (10.71") and that the space above the Abstact is exactly as in the sample. Write your name and the shortened title of the paper in pencil in the bottom margin of each page and number the pages correctly.

#### 7 DEADLINE

The above material should be with the editor before the deadline for submission. Any material received too late will not be published. Send the material by airmail or by courier well packed and in time. Be sure that all pages are included in the parcel.