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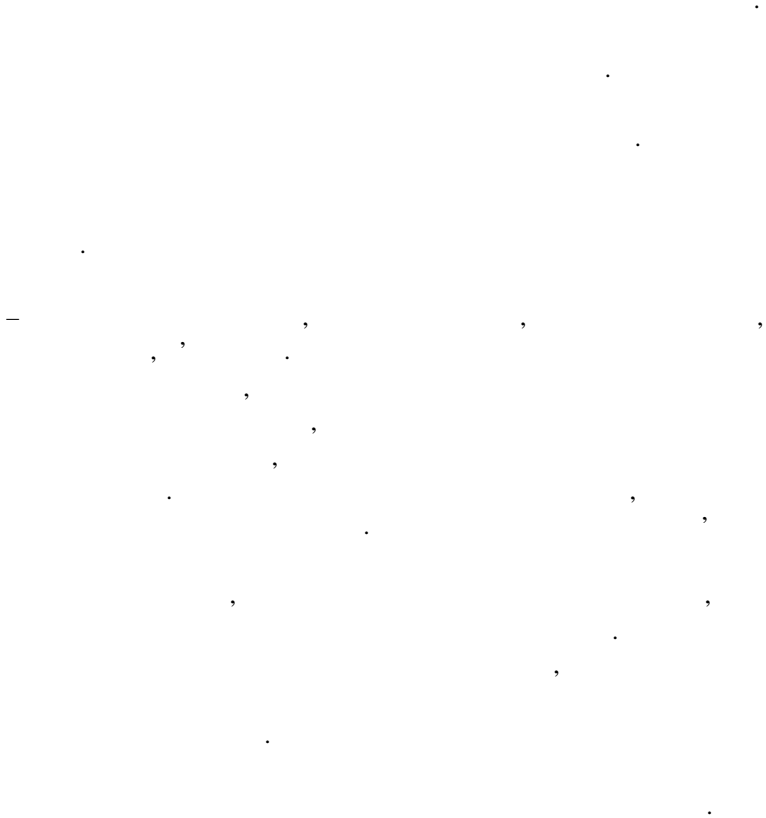
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1.1.

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"... , ; . 1043; 38, . 283].

" [31, . 9; 8,

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* XIX ..

XX

[180, . 537; 33, . 562].

[33, . 562].

" "

[82, . 19-23].

1950- ..

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60-70 . XX .

1980-

" [180, .77].

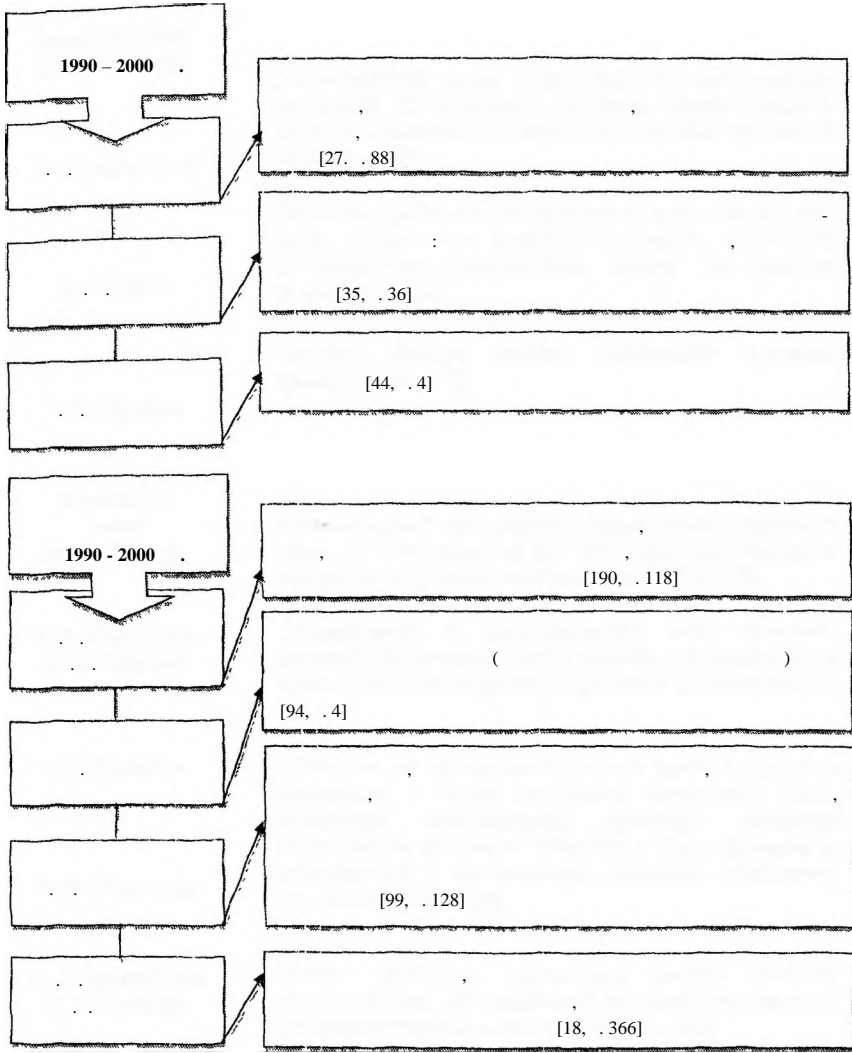
[174, .263].

" (.1.1).

" (effektus) –

[19, 84].

[77].



. 1.1.

() .

[77, . 235 – 236].

[43, 45, 59, 99, 170].

[40, . 175].

[30, 36].

[3, . 9; 39, . 508].

[63, . 164].

[119, . 9].

" [36, . 13].

[102, . 63].

[6].

[188, . 499 – 505].

" [92, . 454].

[39, . 508].

[49, . 6].

[3, . 11].

(" ...),

" [70, . 38-39].

149]. [125,

[101, . 60].

" [24, . 12].

[165, . 93]. [12, . 353;

42, . 412]. [72].

(

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[8, . 93] [162].

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[2, . 397].

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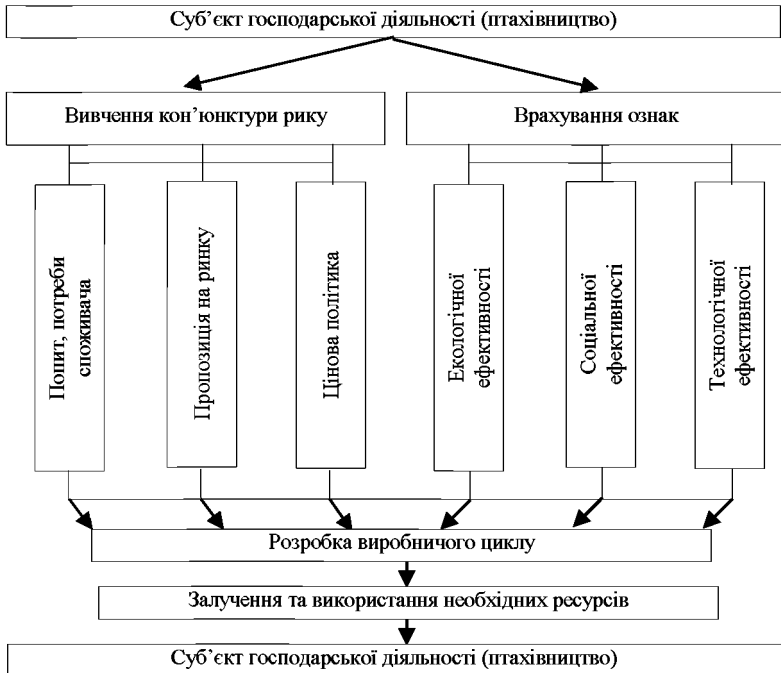
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1. (),
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 9. [3, .22–27].

[15].

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[17].

(. 1.3)



. 1.3.

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1.2.

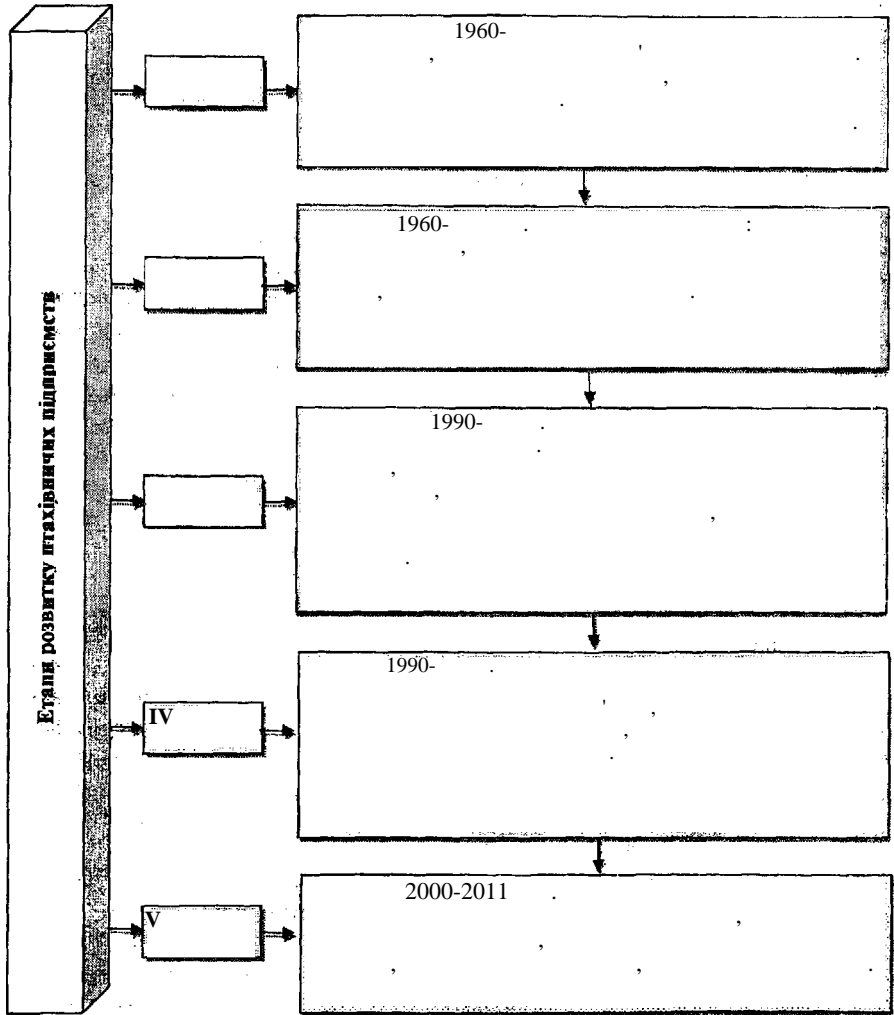
(. 1.4).

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80- [146].

90-

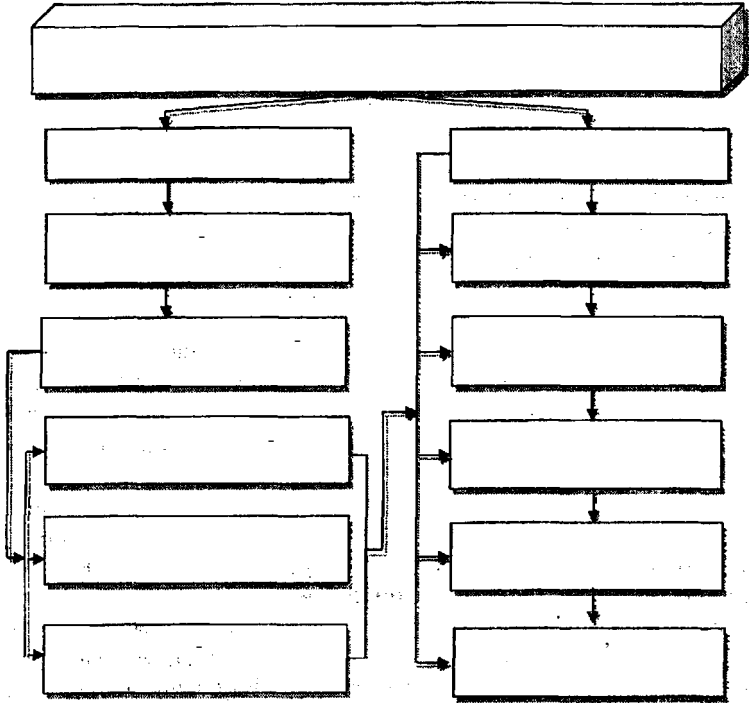
[197, . 72].



. 1.4.

1. $\frac{1}{x^2} = x^{-2}$, $\frac{d}{dx} x^{-2} = -2x^{-3} = -\frac{2}{x^3}$.
 2. $\frac{d}{dx} x^3 = 3x^2$.
 3. $\frac{d}{dx} x^{-1} = -x^{-2} = -\frac{1}{x^2}$.
 4. $\frac{d}{dx} x^{\frac{1}{2}} = \frac{1}{2}x^{-\frac{1}{2}} = \frac{1}{2\sqrt{x}}$.
 5. $\frac{d}{dx} x^{-\frac{1}{2}} = -\frac{1}{2}x^{-\frac{3}{2}} = -\frac{1}{2x\sqrt{x}}$.
- ($\frac{d}{dx} x^{\frac{1}{2}} = \frac{1}{2}x^{-\frac{1}{2}} = \frac{1}{2\sqrt{x}}$).
- ($\frac{d}{dx} x^{-\frac{1}{2}} = -\frac{1}{2}x^{-\frac{3}{2}} = -\frac{1}{2x\sqrt{x}}$).
-) [103].

[103].



.15.

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[1, .557].

[80, . 21, 24, 28; 197, . 72].

12 %

: 12 %

96-98 % [133-135].

[13, . 7].

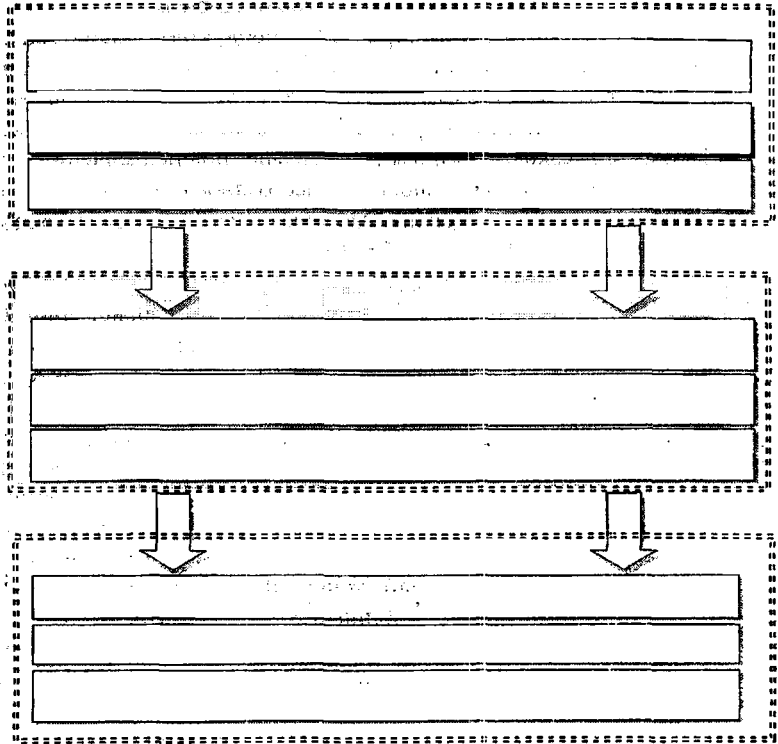
(25-40%),

50-85 %

[23, , 98].

12

(. 1.6).



. 1.6.

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300, 400 500 : - 50, 100, 250,
; - 100 .
1 ., 2 ., 3 . 8 . [1, .559].

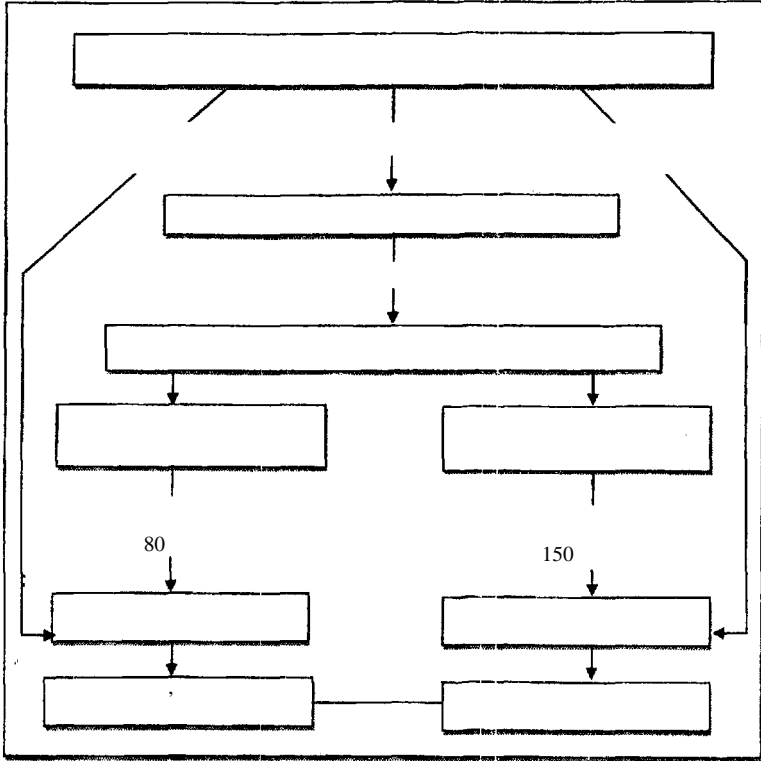
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.410]. 60 -) [51,

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[13, .206].

(.1.7).



.1.7.

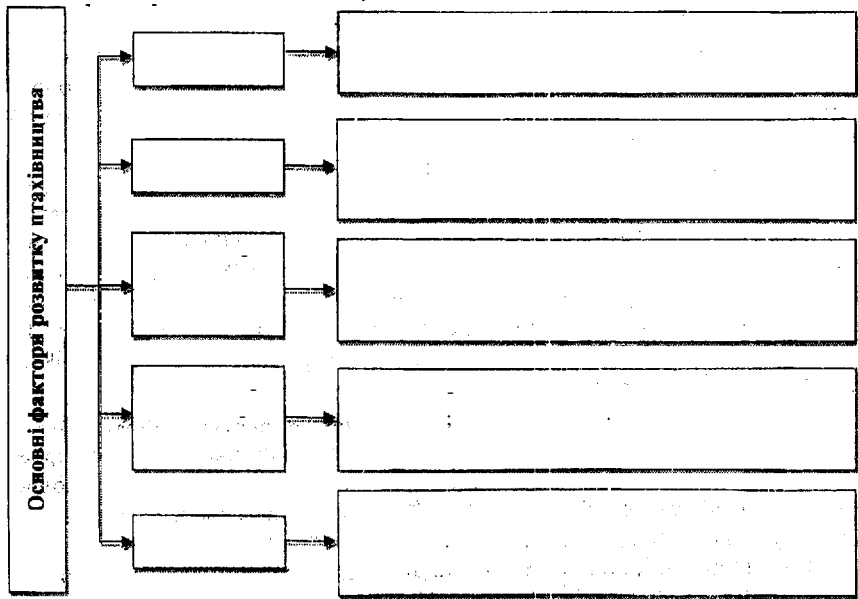
: [51, .411].

150-

60-

(: ())

([13, . 242-243].



(. . 1.8).

. 1.8.

1.3.

«Methodos» (1992), [74, p. 18].

[92, p. 43; 173, p. 111].

[2, p. 30].

[10, . 62].

[173, . 131].

[24, . 21; 75, . 22].

[24, . 24].

[75, . 39; 10, . 125].

[10, .

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[73, . 23].

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[180, . 425].

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" [62, . 4].

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(.1.9).

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[123, .454].

[77, .239].

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

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[REDACTED]

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58].

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[2, 74,

[77, . 237].

[120].

[174].

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$$E_{\phi} = \frac{E}{B} = \frac{\text{ефект(результат)}}{\text{витрати(ресурси)}} \quad (2)$$

(%), (), (), (%)

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(%)

$$= - , \quad (3)$$

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[77, . 244].

$$P_p = \frac{\Pi}{Cp.n.} \times 100 \%, \quad (4)$$

56].

[4, .

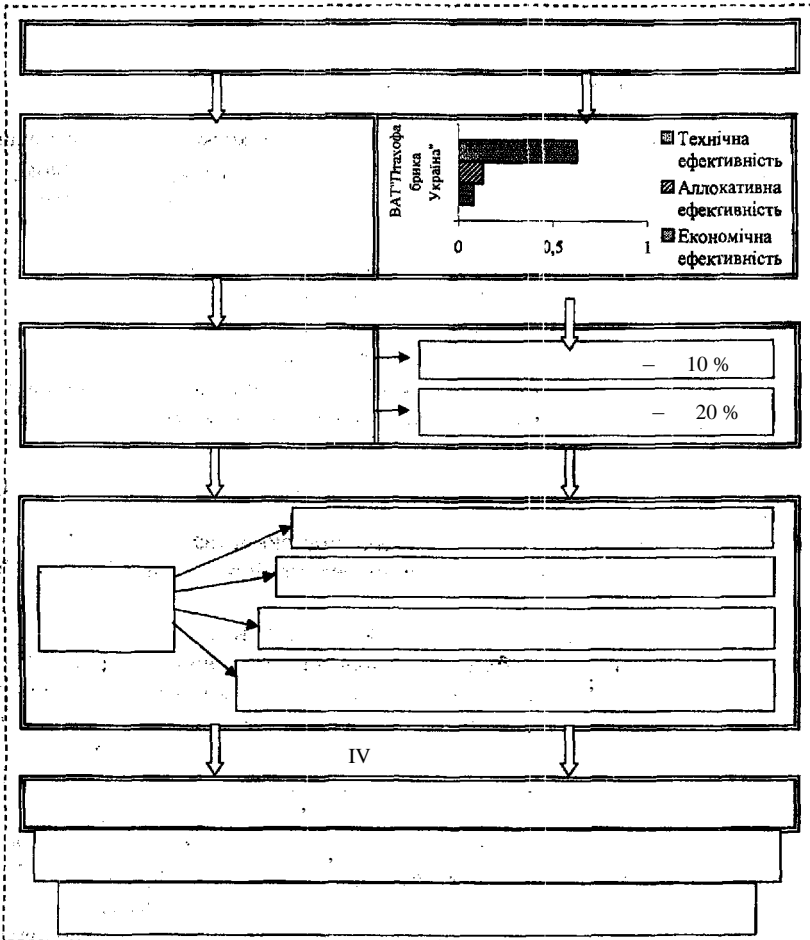
$$E_\phi = \frac{\Pi\phi.}{Cp.\phi.} \div \frac{\Pi n.}{Cp.n.} \cdot 100 \%, \quad (5)$$

(. 1.10).

: 1)

(,); 2)

[15, .6-7].



.1.10.

. 1.11.

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. 1.11

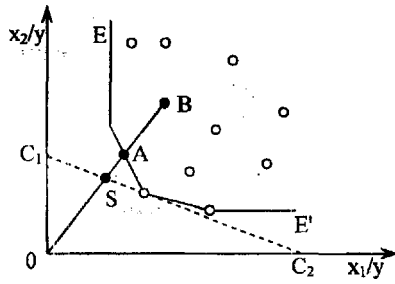
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(1, 2)

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: [17,193].

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[200, .5-26].

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